



GRA, Incorporated

Economic Counsel to the Transportation Industry



ECONOMIC IMPACT OF THE SAN ANTONIO AIRPORT SYSTEM



Prepared for the SAN ANTONIO AIRPORT SYSTEM (SAAS)

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Introduction

The San Antonio Airport System (SAAS) is operated by the Aviation Department of the City of San Antonio, Texas. The department manages one commercial service airport, San Antonio International Airport, and one general aviation airport, Stinson Municipal Airport. San Antonio International Airport is classified as a medium hub airport by the Federal Aviation Administration (FAA).¹ Stinson Municipal Airport is the nation's second oldest general aviation airport in continuous operation. The following sections describe the San Antonio Airport System and the region that is served by the two airports that make up the system.

San Antonio is the United States' seventh largest city, with a population of 1.33 million. Based on 2011 population projections, the San Antonio-New Braunfels MSA, with a population of 2.2 million² is the twenty-fourth largest metropolitan area in the United States. Additionally, the San Antonio MSA is the third largest MSA in Texas, after the Dallas-Fort Worth-Arlington MSA and the Houston-Baytown MSA. San Antonio is both a regional center of commerce and a vibrant tourist destination. Its airports enable people and goods to move within the Southwest United States, across the nation, and throughout the world.

Information, education and health services, trade and transport and the leisure and hospitality industries are linchpins of the San Antonio regional economy. The San Antonio-New Braunfels MSA is home to the headquarters of six companies on the Fortune 1000 list: Valero Energy Group, Tesoro Petroleum Corp., CC Media Holdings (Clear Channel), USAA, NuStar Energy, and Rush Enterprises. The City of San Antonio is also a cultural hub for the region and for convention and leisure visitors, with an active riverfront development, the San Antonio RiverWalk,³ which provides recreation and entertainment to visitors and residents alike.

A significant portion of the long distance visitors to the San Antonio region choose to travel there by air. These travel needs are served at San Antonio International Airport, which provides commercial passenger, general aviation and cargo services. During 2011, San Antonio International Airport (SAT) supported approximately 4 million enplanements.⁴ SAT is used by numerous U.S. and international passenger and cargo airlines, and is also served by several nonscheduled charter operators. With Dallas Love Field and Houston Hobby Airport, San Antonio International was part of Southwest Airlines' original 1971 "Texas Triangle."

Stinson Municipal Airport (SSF), is classified by the FAA as a general aviation reliever airport,⁵ and does not have scheduled commercial service. The majority of traffic at SSF is corporate and recreational aviation users, along with users from the Civil Air Patrol, law enforcement, medical and news-gathering communities.

¹ A medium hub handles 0.25% to 1.0% of passenger boardings in the nation.

² United States Census Bureau.

³ <http://www.thesanantonioriverwalk.com/>

⁴ FAA Terminal Area Forecast, at aspm.faa.gov/main/taf.asp, and SAAS December 2011 traffic report at <http://www.sanantonio.gov/Aviation/imagelibrary/uploadedfiles/upload-26201231100pm.pdf>

⁵ Airports designated by the FAA as reliever airports are customarily large general-aviation airports located in metropolitan areas that serve small aircraft traffic to preserve capacity for larger aircraft at hub airports in the region.

San Antonio has historically been a hub for military training and logistics, especially for the U.S. Air Force. This military presence remains an important part of San Antonio life, and the city is referred to as “Military City USA.” While most military aviation activity takes place at the two active Air Force bases, Lackland Air Force Base and Randolph Air Force Base, some military fueling and other activity takes place at San Antonio International – about three percent of operations – and at Stinson Municipal – about five percent of operations.

The sections that follow report the economic impacts of these two airports. Detailed estimates of the impacts for each of the two airports and for SAAS overall have been developed. These impacts come from the production of aviation and related services at the airports and from the business operations of airport-dependent entities in the San Antonio region. These are treated as “direct” economic impacts of San Antonio’s airports. For example, spending on concessions by passengers at SAT waiting for their flight’s departure would be captured as a direct economic impact.

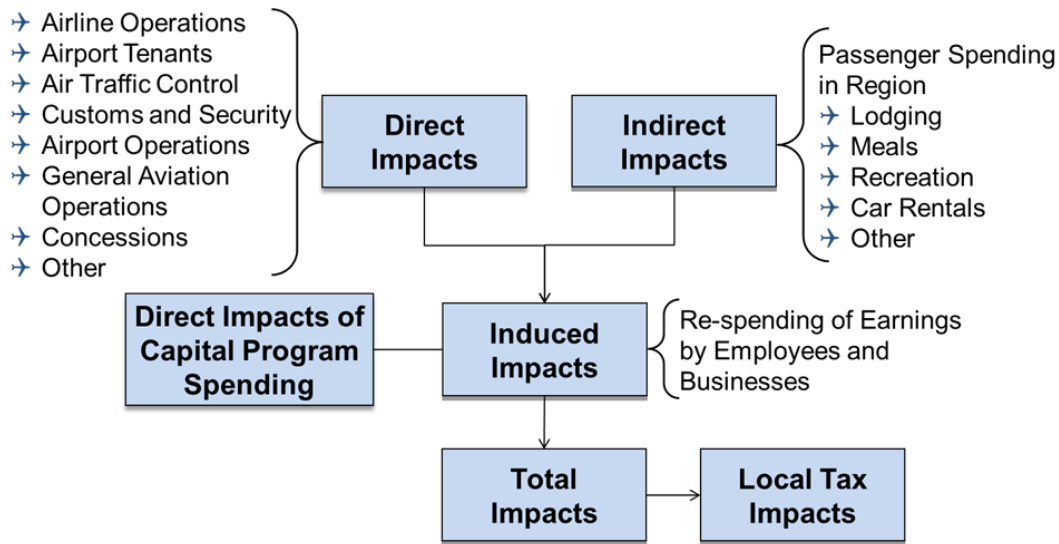
Visitors to the San Antonio area using the airports also spend on accommodations, dining, transportation, and entertainment within the local economy. These expenditures are termed “indirect” economic impacts of the airport.

The earnings associated with direct impacts and the spending represented by the indirect impacts is spent within the region, and earnings derived from this spending are then re-spent. The extent of the “induced” economic impacts represented by this circulation of spending throughout the San Antonio region was estimated using the RIMS II model of input-output relationships within the regional economy. Developed and maintained by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce, the RIMS II system is a standard tool in the calculation of total economic impacts within a region.⁶

The data and categories of economic activity used to estimate these are presented below. Figure 1 depicts the relationships among these economic impact categories as well as the economic sectors that contribute to them in an airport environment. The study reports three measures of economic impacts: employment, earnings, and output. For each of these, the total impact includes direct, indirect, and induced components. The SAAS Economic Impact Study also reports the impacts of the airport system’s capital programs, an estimate of the taxes generated by airport activity, as well as a ten year forecast for future economic activity associated with the SAAS airports.

⁶ RIMS-II multipliers are calculated by the Bureau of Economic Analysis, and show how changes in local demand affect total gross output, value added, earnings, and employment in the region. The RIMS II system of “multipliers” for employment levels, earnings, and economic activity or output are adjusted for spending that goes outside of (or “leaks from”) the San Antonio region during rounds of spending, and how much of the “induced” income and employment remains in the local economy after all rounds of spending.

Figure 1: Economic Impact Overview



In the body of the report, we present the results of the calculation and analysis of the economic impacts of the San Antonio Airport System airports for the San Antonio regional economy. (Note that minor discrepancies in column or row totals within tables may occur due to rounding.) We also describe the methodology used in calculating direct impacts, visitor expenditure impacts, induced impacts, capital improvement program impacts, as well as the taxes generated from San Antonio Airport System airport economic activities. The main report concludes with an example of the calculation of induced economic impacts and a ten year projection of system economic impacts. Following the main report, two attachments examine economic impacts of San Antonio International Airport and Stinson Municipal Airport individually. The final section is an Appendix containing tables reporting our data, methodology and results in greater detail.

Summary of Economic Impacts

The total economic impact in 2011 of the San Antonio Airport System was nearly \$5.1 billion within the San Antonio regional economy. This is the combined economic impact of San Antonio International Airport, and Stinson Municipal Airport. This total is comprised of direct (\$1.1 billion), indirect (\$1.2 billion) and induced (\$2.8 billion) economic output impacts of the airports and their related entities. Direct impacts come from the production of passenger, cargo, government and private air transportation and airport services and include the impacts of average annual capital expenditures (which is a function based upon the San Antonio Airport System Capital Improvement Plan). Indirect impacts represent spending in the local economy by air visitors, spending which becomes revenue for San Antonio businesses and earnings for their employees and proprietors. Induced impacts come from the spending and re-spending by recipients of income received as part of the direct and indirect impacts.

As shown in Table 1, the two San Antonio Airport System airports are responsible for over 98,000 full time equivalent jobs, generating \$1.6 billion in employee and proprietor earnings. Direct, indirect and induced employment impacts exceed 6,000, 15,000 and 77,000 full time equivalent jobs, respectively. Employment associated with the San Antonio Airport System generates earnings of over \$290 million in direct earnings, \$279 million in indirect earnings and over \$1.0 billion in induced earnings for workers and proprietors.

Table 1: Total Economic Impact of San Antonio Airport System Airports

	Employment	Earnings (\$Mil)	Output (\$Mil)
Direct Impacts	6,053	\$290.9	\$1,083.7
Indirect Impacts	15,233	\$279.4	\$1,151.7
Induced Impacts	77,390	\$1,028.3	\$2,842.7
Total	98,676	\$1,598.5	\$5,078.1

Figure 2 shows graphically the shares of direct, indirect and induced output, also reported in Table 1. “Output” is the economic impact measure that reflects the regional economic activity associated with spending by firms, organizations and individuals (including employees) in a particular setting. Output is often referred to as “economic activity.” For example, the direct output measure represents the economic activity and transactions involved in the production of on-airport services for all users of the airport system. The direct and indirect output impacts, which represent the first rounds of spending within the region, account for about 46 percent of the total and induced output impacts, which represent all further rounds of spending, account for the other 54 percent.

Figure 2: Total SAAS Economic Impact by Type of Output

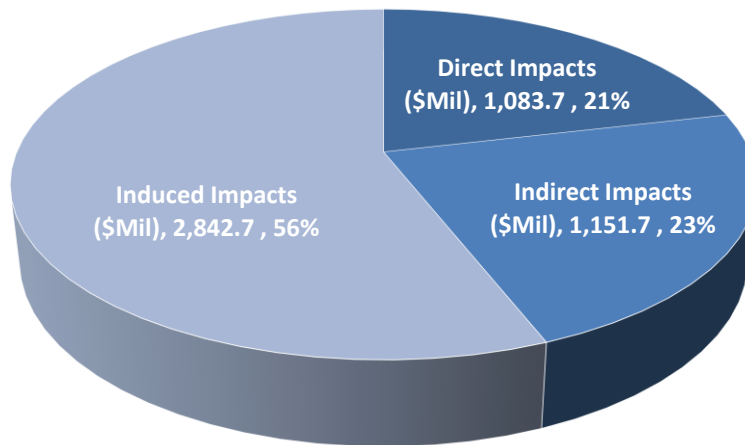


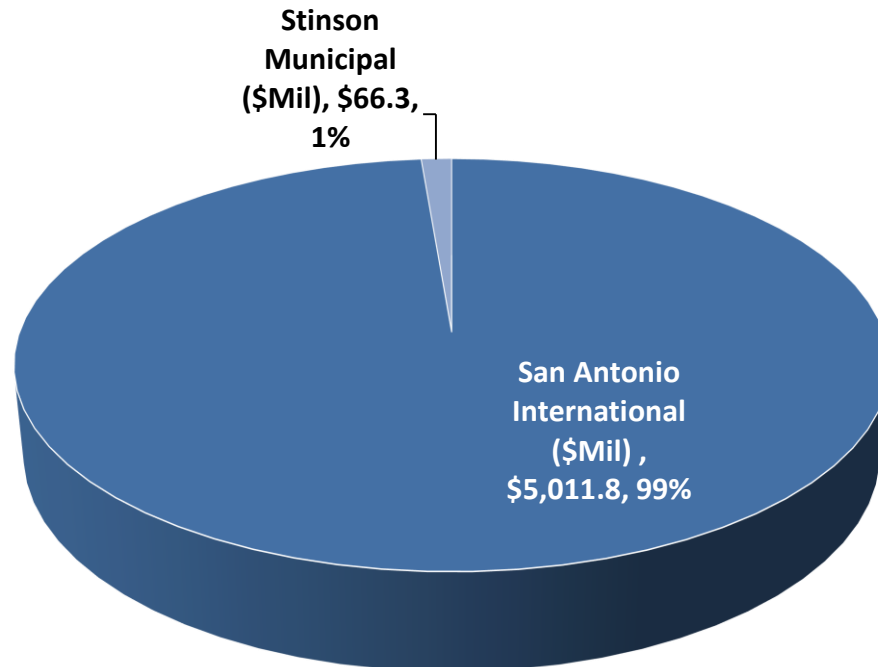
Table 2 reports the economic impacts for each of the two SAAS airports. The total economic impact of San Antonio International Airport was over \$5 billion. Activity at SAT results in nearly 98,000 full time equivalent employees of the San Antonio MSA, with total earnings impact exceeding \$1.5 billion. Stinson Municipal is responsible for over 1,000 full time equivalent jobs, with total earnings impact of \$22.4 million and economic activity of over \$66 million.

Table 2: Total Economic Impacts by San Antonio Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	97,589	\$1,576.1	\$5,011.8
Stinson Municipal Airport	1,087	\$22.4	\$66.3
Total	98,676	\$1,598.5	\$5,078.1

As Figure 3 indicates, SAT accounts for nearly 99 percent of the SAAS impact, while SSF accounts for one percent.

Figure 3: Total Economic Impact of Output, by Airport



Summary of Direct Impacts

Table 3 shows that the direct output impacts exceed \$1 billion for the San Antonio Airport System airports. The direct employment impact exceeds 6,000 jobs and direct earnings from these jobs exceed \$291 million. A significant share of the output, earnings and employment impacts can be attributed to aircraft maintenance and repair and airlines, which together generate over \$ 440 million and \$71 million in output and earnings respectively, and together employ over 2,200 people. Air freight and cargo operations provided the next highest output level, followed by fixed base operators (FBOs), which produce \$192.2 million and \$109.4 million in output, respectively. Direct impacts also include the effects of SAAS Capital Improvement Plan (CIP) spending.

Table 3: Direct Economic Impact of SAAS Airports

	Employment	Earnings (\$Mil)	Output (\$Mil)
Air Freight And Cargo Operations	475	\$26.5	\$192.2
Aircraft Maintenance and Repair	1,524	\$74.0	\$229.9
Airlines	704	\$37.9	\$210.8
Corporate and Private Hangars	239	\$11.6	\$36.1
Executive Charters	13	\$0.7	\$3.0
Fixed Base Operators	725	\$35.2	\$109.4
Ground Support Services	189	\$9.2	\$28.5
Government	713	\$38.7	\$86.6
Pilot/Mechanic Training	400	\$21.8	\$89.8
Airport Concessionaires	522	\$6.6	\$27.9
SAAS Annual CIP Spending	549	\$28.7	\$69.5
Total	6,053	\$290.9	\$1,083.7

Figure 4 shows the distribution of direct impacts by sector. Airlines and aircraft maintenance and repair account for almost half of the impact; air freight, FBOs and pilot/mechanic training are the next largest sectors in terms of output.

Figure 4: Direct Impacts by Sector

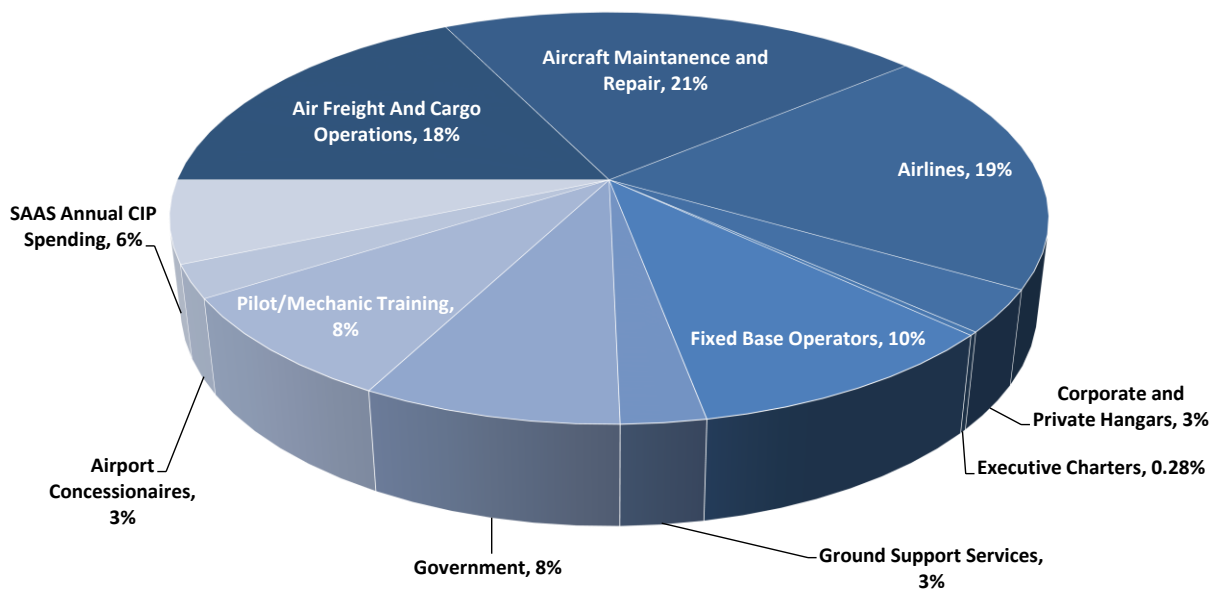


Table 4 shows that San Antonio International generated over \$1 billion in direct output impacts, including nearly \$300 million in earnings and over 6,000 jobs. Stinson Municipal's direct impacts include 74 jobs, \$3.7 million in earnings, and over \$11 million in output.

Table 4: Direct Impacts by Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	5,979	\$287.1	\$1,072.6
Stinson Municipal Airport	74	\$3.7	\$11.1
Total	6,053	\$290.9	\$1,083.7

Summary of Indirect Impacts

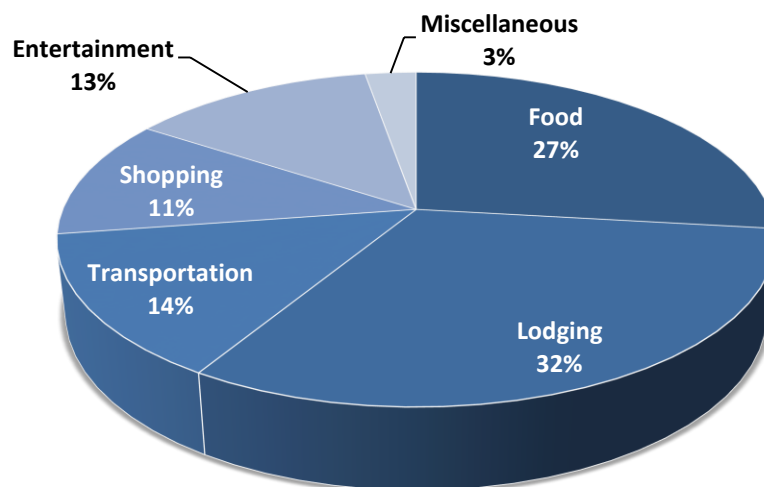
Table 5 reports indirect output impacts exceeding \$1.15 billion for the San Antonio Airport System airports. The indirect employment impact exceeds 15,200 jobs, with earnings from these jobs at nearly \$280 million.

Table 5: Indirect Economic Impacts of San Antonio Airports, by Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	14,973	\$274.7	\$1,132.7
Stinson Municipal Airport	260	\$4.7	\$19.0
Total	15,233	\$279.4	\$1,151.7

Figure 5 shows the breakdown of indirect impacts by type of expenditure by visitors to the San Antonio region. Lodging, at 32% of total visitor expenditures, represents the largest portion.

Figure 5: Indirect Impacts by Sector



Economic Impact Methodology and Results

Introduction

Airports have a significant role in regional economies through their contribution to business activities that rely on passenger air transportation availability and quality, while acting as centers of business in their own right. The airports of the San Antonio Airport System are no exception, enabling both domestic and international travel for local residents and visitors to the San Antonio region by connecting the region to the international air transportation network. The system's airports, in conjunction with surface freight and logistics providers, also facilitate the trade of time sensitive goods using air cargo. Commercial aviation provides an important productivity tool for businesses in the form of high-speed, direct transportation. As with any large enterprise, economic activity at SAAS also generates valuable economic impacts through its "ripple effects" throughout the region. SAAS contributes to the regional economy through the spending of those who produce air transportation and the airport services that support it, through airport construction and development, and through the expenditures of air visitors. These economic impacts can be separated into direct, indirect, and induced economic impacts, which are described below.

Direct Impacts are those generated by air transportation and other uses of the airports that occur at the airports. These impacts are measured by the employment, earnings, and the output associated with the following industries and entities:

- ➔ Commercial airlines and air charter operations (both passenger and cargo)
- ➔ Airport concessionaires which provide air passengers with goods and services
- ➔ Passenger ground transportation providers (including parking)⁷
- ➔ Airport and aircraft service providers
- ➔ Air cargo services providers
- ➔ General aviation (non-commercial) aircraft operators (e.g., flight schools)
- ➔ Government agencies supporting airport use

Direct impacts also include expenditures made as airport capital investments, which are measured by the budget allocated for such projects. Although capital budgets are usually reported for multi-year periods, the spending for these activities will be expressed as an annual impact so it can be consistently added to the other direct impacts, which are associated with a specific year.

Indirect Impacts are calculated by estimating the expenditures of business and leisure air travelers who visit the San Antonio area. Visitor spending supports employment, earnings, and output for numerous industries in the San Antonio region, including:

- ➔ Traveler accommodations (hotels, motels, etc.)

⁷ This report adjusts visitor spending on ground transportation so that it does not double count airport-related ground transportation with that reported in the passenger spending.

- ➔ Food (restaurants, bars, etc.)
- ➔ Transportation
- ➔ Shopping
- ➔ Entertainment
- ➔ Other purchases of goods and services

Spending in the region associated with direct and indirect impacts become earnings for other economic actors in the San Antonio area.

Induced Impacts represent the economic effects of the spending and re-spending of these earnings as they cycle through the San Antonio regional economy as earnings and expenditures. These induced impacts are estimated using the RIMS II multipliers derived from an Input-Output model of the eight-county San Antonio-New Braunfels Metropolitan Statistical Area developed by the Bureau of Economic Analysis of the U.S. Department of Commerce (BEA).⁸

The following sections describe the methodology and results associated with each of the aforementioned impact categories.

Summary of Study Methodology

Economic impact studies are conducted to estimate the contribution that a facility, organization or sector makes within a region's economy. For airports and airport systems, economic impact analyses typically focus on the impacts of economic activities that result from passenger and cargo transportation by commercial airlines, or non-commercial (general aviation) activity, from visitor spending represented by the local expenditures by air passengers, from the capital investments made at the airports, and from the regional tax impacts generated by these airport economic activities.

Industries that contribute to the direct impacts of air transportation and airport operations are those that support passenger or cargo transportation (including their subcontractors). In this analysis, GRA estimated direct impacts of industries that directly receive revenues from air passengers or cargo shipments, provide support activities for airlines, aircraft operators and airports, and government and non-commercial entities that support or facilitate the safety and security of airport activities.

For firms or organizations operating at an airport, the number of employees, total employee and proprietor earnings, and the total annual sales or budget of the entity make up its contribution to the direct impact of the airport. These data were collected primarily through a web-based survey of companies identified through the SAAS airport tenant directory. In addition, the San Antonio Airport System provided other tenant and airport user records, in

⁸ The Bureau of Economic Analysis (BEA) calculates the RIMS-II multipliers for specific geographical regions in order to allow for the estimation of economic impacts due to economic activities within a specific region. This input-output model uses detailed industry sectors to appropriately allocate economic impacts to their proper areas. For the purposes of our study, the San Antonio-New Braunfels Metropolitan Statistical Area was used.

particular, airport badge counts from the recent past, organized by tenant or airport organization. The survey results were supplemented by these other databases, which provided employment figures, earnings figures, and/or total sales and budget levels. In some cases, estimates were made based upon economic data from the Bureau of Labor Statistics⁹ and the Economic Census of the United States¹⁰ and data provided by the San Antonio Airport System. These data primarily involved activity-level measurements and company size measurements. The San Antonio Airport System also provided data on airport concessions and the budgets for airport-related services such as the San Antonio Airport System operating budget.

The indirect visitor spending impacts were estimated using passenger statistics from San Antonio International Airport and Stinson Municipal Airport, such as the distribution of origin-destination passengers and connecting passengers, tourism data provided by the San Antonio Convention and Visitors Bureau,¹¹ as well as other data provided by the San Antonio Chamber of Commerce.¹² Data on the proportion of air passengers that are not San Antonio area residents was developed by GRA using Department of Transportation Db1b ticket sample data. Local air visitors were estimated using DOT air carrier statistics and general aviation operations statistics for the two San Antonio Airport System airports.

Average visitor expenditures were estimated using the San Antonio area tourism data, which allowed the separation of visitors by trip purpose—it was found, for example, that on average, business passengers tend to spend more time in the San Antonio region than do leisure visitors. Using these sources, GRA allocated traveler spending to various travel-related industries (e.g., “Lodging”). These categorized expenditures were used to represent the gross sales of the various industries, and, subsequently, earnings and employment were estimated using industry statistics from numerous sources, such as the Department of Labor and the U.S. Economic Census. The study does not incorporate airline ticket sales; because fares paid do not represent economic activity directly affecting the San Antonio region. The study instead measures the spending by airlines and aircraft operators at SAAS airports to produce air transportation services in the region.

Induced impacts were developed from the direct and indirect impact estimates using industry-specific BEA RIMS-II multipliers for the 8-county San Antonio-New Braunfels Metropolitan Statistical Area, which were acquired for the study from the BEA.

The estimated economic impacts are based on the calendar year 2010 airport activity levels. The regional industrial input-output statistics used by the BEA to develop the input-output economic relationships expressed in the RIMS II multiplier are based on 2007 data, which is the most recent available from the Department of Commerce for this purpose.

⁹ <http://www.bls.gov/data>

¹⁰ <http://www.census.gov/econ/census07/>

¹¹ <http://www.visitsanantonio.com/index.aspx>

¹² <http://www.sachamber.org>

Economic Impact of San Antonio Air Transportation and Airport-Related Industries (Direct Impacts)

Air transportation provides rapid long distance travel for leisure and business travelers. It also allows high-value, time-sensitive cargo to be more readily available over great distances, which permits supply chains to become more spread out and locationally efficient. Commercial air transportation services at San Antonio International Airport are provided by both scheduled and charter airlines, with support from other industries such as local ground transportation, passenger and cargo processing, airport operations, and airport concessions. Other airport system users, at both San Antonio International and Stinson Municipal, include public and private non-commercial aircraft operators, flight schools, general aviation pilots and passengers, and firms related to the aviation industry, such as fixed base operators serving general aviation.

GRA used the following steps to estimate the direct impacts of air transportation and related industries at San Antonio Airport System airports:

- ➔ Identify the industries operating at or dependent on airport services
- ➔ Identify the companies and organizations in these industries
- ➔ Survey these companies for employment, earnings, and budget/output levels¹³
- ➔ Develop total direct employment statistics and compare employment levels to San Antonio Airport System badging databases
- ➔ Estimate missing data for partial or missing responses to the survey and follow-up efforts
- ➔ Estimate direct economic impact categories based upon BEA RIMS-II multipliers

Identification of Industry and Other Contacts

The following industries were identified as having direct impacts in the region based on commercial aircraft activities at San Antonio Airport System airports.

- ➔ Airlines serving San Antonio
- ➔ Air freight and cargo operations
- ➔ Aircraft maintenance and repair
- ➔ Corporate and private hangars
- ➔ Executive charters
- ➔ Fixed based operators
- ➔ Ground support services
- ➔ Other contractors/service providers and government
- ➔ Pilot/mechanic training
- ➔ San Antonio airport concessionaires

¹³ Surveys were conducted using email contacts with links to online survey tools. Follow-up contacts were made using both e-mail and telephone, as well as through efforts conducted by SAAS.

For the above categories, GRA identified individual companies or entities for each of the two airports based upon the following sources, and using industrial classifications where available:

- ➔ San Antonio Airport System badging database
- ➔ San Antonio Airport System telephone directory
- ➔ Airport stakeholder lists and other contacts
- ➔ Other contacts as revealed through interviews with San Antonio Airport System staff and with other airport stakeholder organizations

A total of 102 survey contacts were identified for the San Antonio Airport System airports from these sources. GRA relied on a specific point of contact for each stakeholder.

Industry-Based Survey

The GRA team constructed industry-specific surveys to determine employment, earnings, and overall sales/budget information for every contact. These were developed in draft form, and tested and modified as necessary. The surveys were distributed through the use of a web-based platform, and the survey respondents responded online. The data requested included both full and part time employees, total wages and earnings paid to employees, and total revenue figures.

GRA attained a response rate of approximately 33 percent. While the response rates were incomplete (although higher than many similar survey efforts), respondents provided sufficient data for reliable estimates to be developed for the airport community, using both survey data and supplemental data obtained from the San Antonio Airport System and other sources.

Direct Employment Estimates

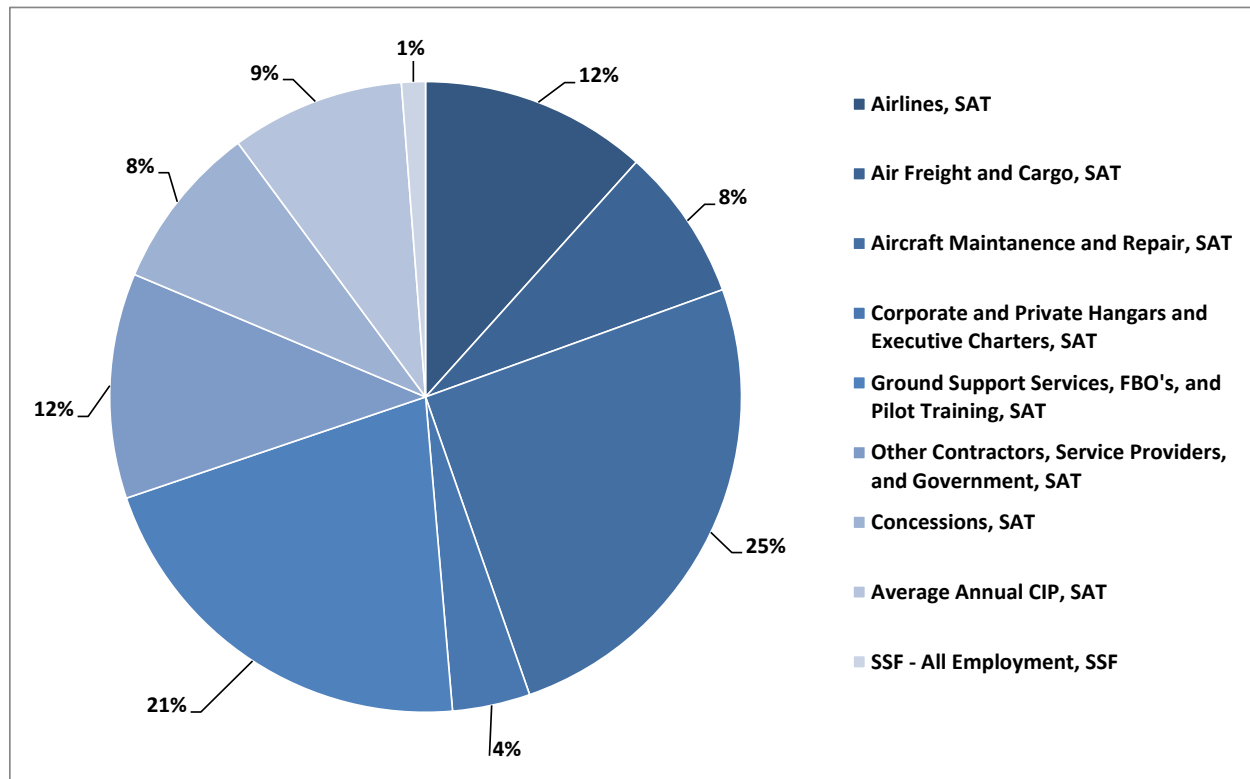
Total employment for the aforementioned entities was estimated from the survey results, secondary data, San Antonio Airport System contacts, and the San Antonio Airport System badging database. At times, it was necessary to make adjustments or estimations to the employment figures to account for discrepancies or missing data. The following adjustments were made:

- ➔ Entities that did not complete or submit the survey at San Antonio International Airport had their employment measures estimated using the San Antonio badging database.
- ➔ Entities that did not complete or submit the survey at Stinson Municipal Airport had their employment measures estimated using Bureau of Labor Statistics and other data.
- ➔ Employment for taxi and limousine transportation was projected based upon the San Antonio Airport System counts for taxi permits.

The estimated direct employment impacts for air transportation and related industries total over 5,500 full time equivalent jobs, including 5,441 at San Antonio International Airport, and 63 at Stinson Municipal Airport. We found that airlines accounted for 12 percent of total direct jobs at San Antonio International.

Figure 6, shows the distribution of direct employment for each of the two airports. As can be seen, SAT accounts for nearly all of the direct employment within the San Antonio Airport System, with approximately 99 percent of total direct jobs, while Stinson Municipal Airport accounted for approximately one percent of total direct jobs. The figure can be read as starting with SAT airline employment, at 12 percent of direct employment, and proceeding clockwise around to the one percent of employment at Stinson Airport.

Figure 6: Direct Employment by Airport and Sector



Direct Earnings and Output Effects

Direct earnings and output impacts were estimated for both airports based upon survey data and government statistics for industries in the San Antonio-New Braunfels Metropolitan Statistical Area. GRA used the following processes:

- ➔ The impacted entities were categorized using the North American Industrial Code System (NAICS).
- ➔ Surveys were sent to all points of contact seeking data for employment, employee earnings, and output.
- ➔ If there was no response to a survey, average employee wages were estimated using the 2007 Economic Census for the specific NAICS-code, and then multiplied by the total number of employees (from the San Antonio Airport System badging database and other data) to generate a total wage bill.

- ➔ Using the 2007 Economic Census, GRA obtained the “Total Revenue Size of Establishment” value for each NAICS code. GRA then calculated the Economic Census’s ratio of “Total Revenue Size of Establishment” to “Total Employee Size of Establishment.” Using this ratio, GRA was able to estimate total output for each entity.
- ➔ Using the U.S. Bureau of Economic Analysis Regional Economic Data, GRA was able to develop a total *earnings* measure for each point of contact.¹⁴
- ➔ Data are reported in aggregate by NAICS code; data for individual business or other entities (other than SAAS itself) is not reported individually

Visitor Expenditure Impacts (Indirect Impacts)

The number of air visitors to San Antonio was estimated for both commercial and general aviation flight services. For commercial aviation, the share of arriving passengers who indicated they resided outside of the region on the San Antonio Airport System survey was the basis for estimating air visitors using San Antonio International Airport. We divided these passengers into business and leisure travelers. Using results from the *ExPact 2004 Convention Expenditure & Impact Study* by Destination Marketing Association International (DMAI),¹⁵ we then estimated visitor spending using the methodology discussed below.

Commercial Airline Visitors

Visitors travel to the San Antonio region for a variety of reasons. The SACVB data and past industry data and trends indicates that among travelers using commercial aviation, leisure passengers comprise approximately 67 percent, while business passengers comprise approximately 33 percent of passengers.

Air transportation provides a valuable means of connecting distant city pairs and thereby enabling fast-paced business transactions and consultations or leisurely family trips. San Antonio Airport System’s commercial airport, San Antonio International Airport, is essential for bringing tourist, business, and other visitors to the San Antonio region. For visitors traveling to the region by air, the “indirect impact” of visitor expenditures on the local economy was measured based upon passenger characteristics and spending patterns for air visitors. The methodology is summarized below:

- ➔ Passenger statistics were used to estimate the total number of commercial passengers passing through the San Antonio International Airport. GRA was able to estimate the total number of origin/destination passengers and connecting passengers through San Antonio International Airport. GRA also was able to adjust for traveling San Antonio residents using San Antonio International.
- ➔ The passengers were then separated by trip purpose—business or leisure.

¹⁴ Earnings include the sum of all wages and salary disbursements, supplements to wages and salaries, and proprietor’s income.

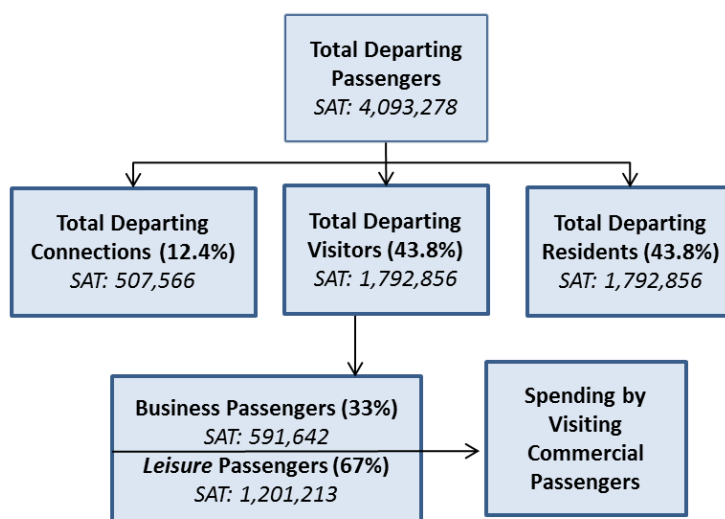
¹⁵ *ExPact 2004: Convention Expenditure & Impact Study: San Antonio*. Destination Marketing Association International (formerly International Association of Convention & Visitor Bureaus), 2004 (rev. 2005).

- All sectors of visitor spending (Food, Room, Transportation, Shopping, Entertainment, and Miscellaneous) were then derived from the SACVB and DMAI visitor profile databases.

Business passengers tend to have slightly longer trip durations than leisure passengers to the San Antonio region, averaging 3.68 and 3.23 days, respectively. Business passengers also tend to have higher average spending levels than leisure passengers during their visits to the San Antonio region. This is particularly true in the area of lodging, where the average expenditures of business passengers are four times those of leisure passengers. Some of these differences can be attributed to the fact that leisure passengers often stay with friends and family when they travel to a region, while business passengers typically require a hotel and other types of services and accommodations. In contrast, expenditures on entertainment by leisure passengers are nearly double those of their business counterparts.

Figure 7 summarizes the decomposition of San Antonio International enplaned passengers into connecting passengers and business and leisure visitors to San Antonio in 2011. GRA started with figures for total enplanements (which would be departing passengers), to focus on trips rather than total annual passengers, which counts both arriving and departing passengers.¹⁶ For a more complete view of visitor spending parameters and calculations, please see Appendix Table 1.

Figure 7: Summary of SAT Commercial Passenger Departures, Connections and Visitors (2011)



Sources: US DOT Passenger Enplanement data (T-100 and DB1B Ticket Sample), and San Antonio Convention and Visitors Bureau

¹⁶ Based on U.S. Department of Transportation (DOT) passenger data, in FY2011 there were 8,186,555 arriving and departing passengers at SAT. Half of these, or 4,093,278, are estimated to be departing passengers. Based on DOT ticket sample data, in FY2011 12.4 percent, or 507,566, of these passengers were connecting passengers. The remaining departing passengers are assumed to equally represent San Antonio area residents departing to commence a trip and visitors to San Antonio departing after completing a trip to the area. There are 1,792,856 passengers estimated for each group. It is difficult to specify what proportion of these visitors to San Antonio are business travelers or leisure travelers. In this analysis it is assumed that 33 percent or 591,642 passengers are business travelers and the remaining 67 percent, or 1,201,213 passengers, are leisure passengers.

General Aviation

GRA used the same visitor spending data from the San Antonio Convention and Visitors Bureau for calculating expenditures by general aviation passengers. General aviation passenger counts were derived from GRA analysis of FAA Enhanced Traffic Management System (ETMS) data for SAT and SSF. These data report all IFR flights arriving at or departing from SAAS airports. GRA then augmented this data with data on other general aviation activity from the FAA Terminal Area Forecast (TAF),¹⁷ which provides an annual count of total general aviation traffic. GRA then used total GA traffic counts, combined with average seats per aircraft and GA aircraft load factor to estimate total GA passengers. A similar approach to that used for business passengers using commercial aviation was then followed to calculate the per-passenger impact of business passengers using general aviation.

Visitors to the San Antonio region using GA aircraft for their travel would not have been included in the Convention and Visitors Bureau survey. Because of this, the length of stay for GA visitors was derived using ETMS data related to aircraft itineraries. GRA examined the arrival and departure times for each visit by non-military general aviation aircraft. To be included in the dataset, it was required that aircraft have a length of stay of over six hours, and a length of stay of not more than 10 days. It was assumed that the passengers of an aircraft with a length of stay of less than 6 hours would not truly engage in visitor spending. Additionally, a length of stay greater than 10 days was assumed to represent a San Antonio airport based aircraft in the dataset, and not an aircraft visiting the San Antonio region.

Finally, the per day average spending for business visitors was multiplied by the number of days spent in the San Antonio region to arrive at total general aviation visitor spending. Detailed estimates of general aviation visitor spending are shown in Appendix Table 1.

Mexican Visitors to San Antonio

The San Antonio region is unique in that it attracts a large number of international general aviation visitors from Mexico who visit for the purpose of shopping and other personal spending and purposes. To better estimate these visitors, GRA examined ETMS data for general aviation traffic to San Antonio International, and identified all aircraft that were registered in Mexico. The numbers of seats on the aircraft were first examined, and using a fifty percent load factor, the number of Mexican general aviation visitors was estimated to be 21,312, representing roughly 37 percent of general aviation visitors. Next, using data from the San Antonio Convention and Visitor's Bureau *Mexican Visitor's Profile*, average spending was calculated using the same method as for general aviation passengers. Mexican GA visitor spending supports 159 jobs, nearly \$3 million in earnings, and \$17.5 million in economic output. This represents 55 percent of the indirect economic output associated with GA travelers to San Antonio.

This large percentage is directly attributable to the fact that Mexican visitors to San Antonio spend, on average, \$609.97 per night on shopping, nearly three times the total expenditures of all other general aviation visitors. It is important to note, however, that based on aircraft utilization, Mexican visitors to the San Antonio region spend considerably less time in

¹⁷ <https://aspm.faa.gov/main/taf.asp>

San Antonio than their other general aviation counterparts—spending roughly 0.84 days on the ground on average, compared to 1.33 days for all GA visitors. (This figure was calculated using a similar methodology to that used for the length of stay of general aviation passengers.)

The visitor spending contributed by Mexican visitors to San Antonio is included within the total visitor spending figures. It makes up an important share of the visitor spending that occurs during their stay, one worthy of special mention as a growing component in the San Antonio tourism market as well as for the San Antonio retail sales sector.

Overnight Crew Spending

With the complex scheduling and crew travel itineraries involved in today's air transportation system, aircrews customarily stay overnight in cities where they are not based. This is no exception in San Antonio, and these crew accommodation activities create a unique type of visitor spending by airlines.

To calculate these values, GRA used the methodology described below:

- ➔ The Official Airline Guide (OAG) was used to estimate the total number of flights that result in an overnight crew stay in San Antonio.
- ➔ For each overnight stay, it was assumed that the Flight Crew was comprised of two pilots and the cabin crew was comprised of three flight attendants.
- ➔ GRA used the FAA Part 117 Rule: Flight Crew Member Duty and Rest Requirements (Nov. 2011)¹⁸ to estimate the average hourly per diem rate for passenger carriers (\$1.94) and the average nightly hotel reimbursement rate (\$69.00).
- ➔ It was assumed that the overnight crews were reimbursed with eight hours at the per diem rate.
- ➔ Total indirect spending for overnight crews was then calculated, with the results shown in Table 6.

Table 6: Spending for Overnight Air Crew Accommodation

	Employment	Earnings (\$Mil)	Output (\$Mil)
Direct Impacts	-	-	-
Indirect Impacts	32	\$0.7	\$3.5
Induced Impacts	48	\$1.5	\$3.9
Total	80	\$2.3	\$7.4

¹⁸ *Regulatory Impact Analysis: Flightcrew Member Duty and Rest Requirements*; Part 117 Final Rule; FAA Office of Aviation Policy and Plans, November 18, 2011.

http://www.faa.gov/regulations_policies/rulemaking/recently_published/media/2120-AJ58RegEval.pdf

Overall Visitor Spending

Overall annual visitor expenditure impacts for all passengers were estimated using the RIMS-II multipliers for the San Antonio travel/tourism and related sectors. Table 7 shows the total impacts (indirect and induced) of visitor spending by travelers using the San Antonio Airport System airports, which includes those using commercial aviation, general aviation (including personal spending by international visitors to San Antonio who arrive on GA aircraft), but does not include the modest impact of overnight flight crew expenditures. The spending produces a total output impact of nearly \$2.4 billion. Overall visitor spending supports a total employment impact of over 26,000 jobs with earnings in excess of \$230 million.

Table 7: Total Impacts of San Antonio Visitor Expenditures, by Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	25,774	\$718.0	\$2,345.7
Stinson Municipal Airport	422	\$12.0	\$39.2
Total	26,196	\$730.0	\$2,384.9

Figure 8 shows the distribution of spending for all visitors using the two SAAS airports. This includes both commercial and general aviation visitors.

Figure 8: San Antonio Area Visitor Spending by Type of Expenditure

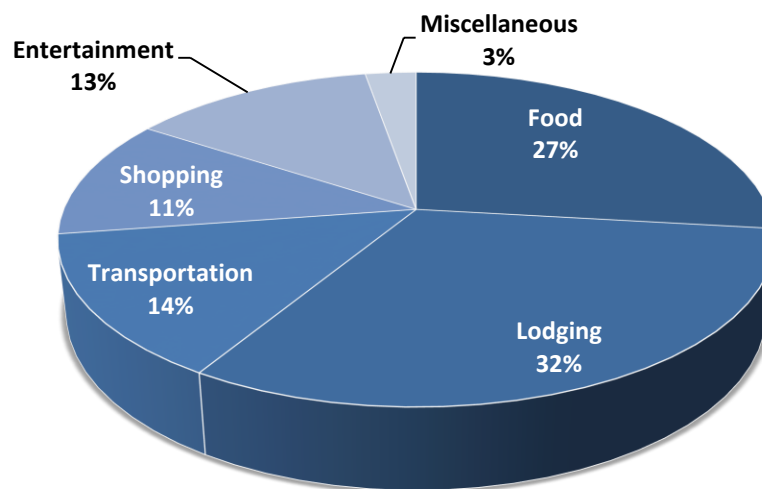
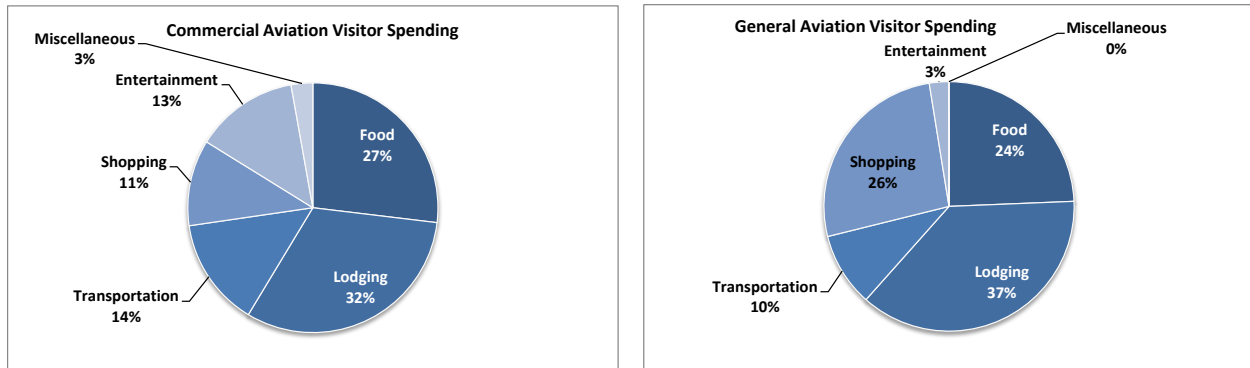


Figure 9 shows characteristics of visitor spending for commercial aviation and general aviation visitors to the region. GA passengers include both business travelers and leisure travelers from Mexico.

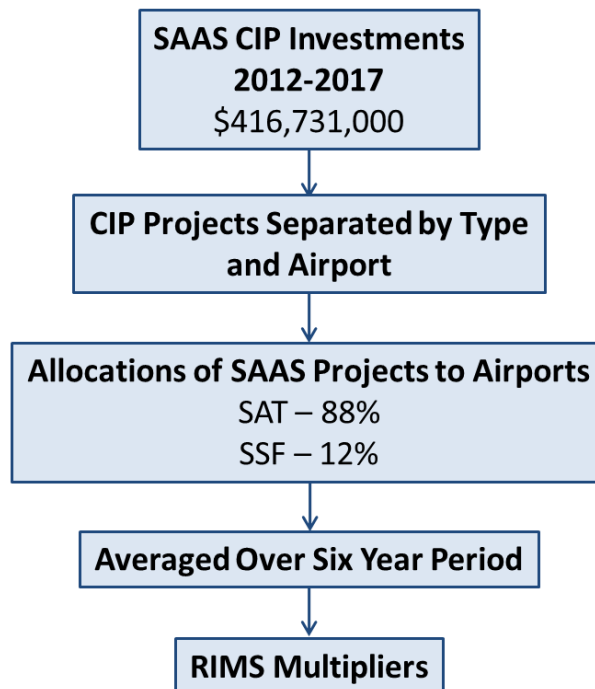
Figure 9: Types of Visitor Spending by Visitor Type



Capital Improvement Programs

Major commercial airports require large investments for improvements to infrastructure, facilities, and airport related equipment. Each year, airports undertake various capital improvement programs (CIPs) such as runway improvements, facility rehabilitations and terminal expansions. These CIPs, in turn, employ people in the fields of construction, engineering, architecture and consulting. Investments in airport design and construction have a major impact on the local economy and are necessary to include in the estimation of an airport's regional economic impact. Figure 10 details the methodology for calculations the impacts from capital improvement programs:

Figure 10: CIP Impact Methodology



- ➔ SAAS provided annual CIP expenditures for the years 2012 through 2017.
- ➔ The expenditures were broken out by airport (SAT and SSF) and by type of project (construction, management, planning and consulting and IT and multi-media telecommunications).
- ➔ Data for each sector were averaged over the six year period to smooth out any peak or trough in construction-related activity.
- ➔ Impacts were estimated using BEA guidance on estimating impacts based on the change in final demand.
- ➔ Total impacts were estimated using BEA RIMS II final demand multipliers.¹⁹ Direct impacts were estimated using the RIMS II direct multipliers.²⁰ Induced impacts were calculated by taking the difference between total and direct impacts.
- ➔ The resulting total, direct and induced impacts report the CIP-related impacts each year over the 2012-2017 period.
- ➔ The RIMS categories used are detailed in Table 8.

Table 8: RIMS Categories

Description	RIMS Categories for CIP Impacts
Construction	Construction
Consulting	Professional, Scientific and Technical Services
Management	Professional, Scientific and Technical Services
IT Related	Internet and Other Information Services
Telecommunications	Internet and Other Information Services

Project types often overlap. For example, reconstruction of a taxiway mainly involves construction, but also involves some design and management. To account for this, we assign 80 percent of the cost of a project to that project's main category, while 20 percent of the cost goes towards a supplemental category. Since the BEA has different multipliers for different sectors of the economy, this method allows us to arrive at a more accurate estimate of impacts. For construction projects, this means that 80 percent of the cost of the project goes towards construction, while 20 percent goes towards professional, scientific and technical services. For management and consulting projects that involve some construction, 80 percent of the cost goes

¹⁹ For total output, the RIMS multipliers represent the total dollar change for each additional dollar of output delivered to final demand by the industry corresponding to the entry. For total earnings, the RIMS multipliers represent the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry. For total employment, the RIMS multipliers represent the total change in the number of jobs that occurs in all industries for each additional one million dollars of output delivered to final demand by the industry corresponding to the entry.

²⁰ For direct earnings, the RIMS multipliers represent the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry for each industry corresponding to the entry. For direct employment, the RIMS multipliers represent the total change in the number of jobs in all industries for each additional job in the industry corresponding to the entry.

towards professional, scientific and technical services, while 20 percent goes towards construction. For IT related projects, 80 percent of the cost goes towards internet and other information services while 20 percent goes towards professional, scientific and technical services.

A summary of the impacts from capital improvement programs is described below. For a more detailed look at these impacts, see Appendix tables 6 - 9.

Table 9 shows the average yearly total, direct and induced impacts for each airport over the six year period.²¹ San Antonio Airport System airports combine to produce \$153.3 million in total output per year over the 2012-2017 period. Direct output for the combined airports is \$69.5 million per year over the six year period and induced output for the two airports is \$83.8 million per year over the same period.

Table 9: Average Yearly Total, Direct and Induced Impacts from CIP Expenditures 2012-2017

	Direct Impacts (\$Mil)	Induced Impacts (\$Mil)	Total Impacts (\$Mil)
San Antonio International Airport	\$67.9	\$82.0	\$149.9
Stinson Municipal Airport	\$1.6	\$1.8	\$3.4
Total	\$69.5	\$83.8	\$153.3

Table 10 details the average yearly total (i.e., not broken out by sector) impacts for each of the SAAS airports. Overall, investments in CIPs are estimated to produce \$153.3 million in output, \$53.4 million in earnings and generate 1,185 jobs each year over the 2012-2017 period. San Antonio International clearly produces the largest impacts at \$150 million, since it includes major CIP investments such as runway and taxiway reconstructions. Investments in CIPs at Stinson are estimated to generate \$3.4 million in output, \$1.2 million in earnings and 25 direct and induced jobs each year over the six year period. CIP impacts broken out by sector and by airport are detailed in Appendix tables 6 - 9.

Table 10: Average Yearly Total Impacts from CIP Expenditures by Airport 2012-2017

	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	1,160	\$52.2	\$149.9
Stinson Municipal Airport	25	\$1.2	\$3.4
Total	1,185	\$53.4	\$153.3

²¹ Some CIP impacts may already be reflected in the total impacts; however, because of the size of the CIP impacts relative to the total impacts, removal of the already-included impacts would have negligible effect. Note that because there are no visitor expenditures associated with CIP impacts, there are no CIP indirect impacts.

Tax Impacts

GRA, Incorporated projected the one-year tax impacts associated with the economic activities at the San Antonio Airport System as part of the San Antonio Airport System Economic Impact Study. The methodology is as follows:

- ➔ GRA examined each of the eight counties in the San Antonio-New Braunfels Metropolitan Statistical Area, and calculated the average tax that is collected by the county. This figure includes the average special purpose district taxes, state sales taxes, county sales taxes, average city taxes, and transit tax. Texas sales taxes and hotel taxes were treated separately.
- ➔ Using an average weighted by the population of each underlying county in the MSA, the average tax among all eight counties was calculated.
- ➔ For each category of visitor spending (e.g., dining, hotel, etc.), taxes were calculated on the indirect spending generated at each airport. Expenditures in the hotel sector had the additional hotel tax added.
- ➔ Again, using visitor spending, taxes were calculated on the total earnings generated at each airport. These were then scaled to 75% percent of their original value to account non-taxable products and various tax incentives that occur in the San Antonio Region and State of Texas.
- ➔ Next, on airport taxes were calculated for each airport, which included total earnings in the aircraft maintenance and repair, fixed base operator, pilot training, and concessions categories. These tax values were also scaled to 75%.
- ➔ The Texas state unemployment insurance taxes were calculated for each airport. Since our study relied on full-time equivalents (FTE's) each with an income greater than the maximum portion of income taxed by unemployment insurance tax, we used a fixed value of tax for each employee.
- ➔ The visitor spending sales taxes, on-airport sales taxes, and unemployment insurance taxes were summed to yield the total tax impacts per year at each airport.

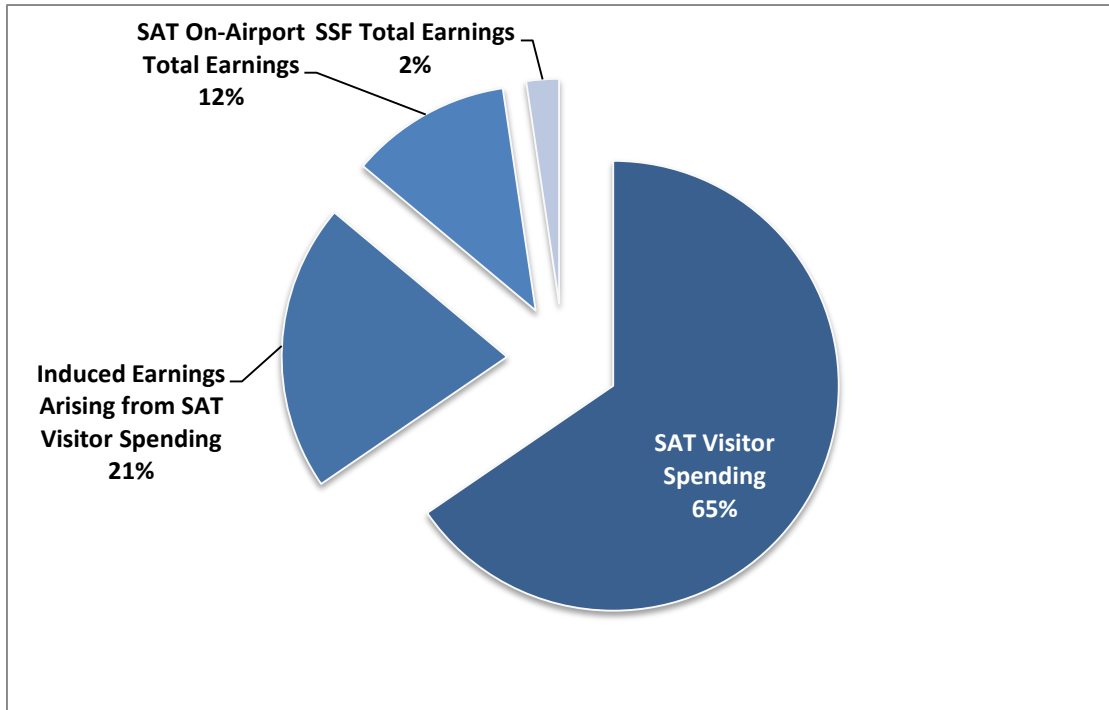
The total tax impacts for both airports are shown in Table 11:

Table 11: State and Local Taxes Generated by San Antonio Airport System Economic Activity

	State Taxes Generated (\$Mil)	Local Taxes Generated (\$Mil)	Total Taxes Generated (\$Mil)
San Antonio International Airport	\$150.4	\$71.7	\$222.1
Stinson Municipal Airport	\$3.2	\$1.5	\$4.7
Total	\$153.6	\$73.1	\$226.8

Figure 11, displays the breakdown of tax revenues from economic activities associated with the San Antonio Airport System by their representative categories. For a more detailed examination of these tax impacts, see the Appendix, Table 5.

Figure 11: Breakdown of Local Tax Impacts by Airport and Tax Source



Induced Impacts of Air Transportation and Airport-Related Industries: An Example

Direct impacts generate additional impacts throughout the local economy, through purchases from local businesses. *Induced* impacts measure these purchases, and are estimated using multipliers developed for the San Antonio metropolitan area by the Bureau of Economic Analysis. The multipliers are applied to the direct output of each industry sector, and consequently produce total impacts from which induced impacts are calculated.

We will use the airline sector at San Antonio International Airport to illustrate the calculation of induced impacts (see Appendix Table 2). The airline sector at SAT contributes 704 jobs, \$37,871,197 in earnings, and \$210,819,353 in output or economic activity to the direct economic impacts of the San Antonio Airport System. These values were estimated using the survey and estimation procedures described in the direct economic impacts section. Using the RIMS-II direct impact multipliers, we are able to derive the total economic effects of the sector. First, we use the final demand output multiplier for air transportation of 1.4837, and multiply this value by the total direct output, \$210,819,353. This calculation results in \$510,983,948 in total economic impacts for the sector. Using the earnings RIMS-II multiplier of 1.9486 for air transportation, we find that the total regional earnings associated with the industry are \$111,665,425. Total employment is calculated in a similar fashion, using the employment multiplier of 1.7115, to yield a total employment of 7,232 jobs.

Now that we have calculated total impacts, we are able to solve for induced economic impacts. First, note that

$$(1) \text{ Total Impacts} = \text{Direct Impacts} + \text{Indirect Impacts} + \text{Induced Impacts}.$$

The airline industry, however, does not have an indirect impact sector, which can therefore be set to zero. Therefore, equation (1) can be rewritten to solve for induced impacts:

$$(2) \text{ Induced Impacts} = \text{Total Impacts} - \text{Direct Impacts}.$$

Using this method, we calculated the induced impacts of the airline sector. The induced impacts are \$300,164,595 in output (\$510,983,948 - \$210,819,353), \$73,794,227 in earnings (\$111,665,424 - \$37,871,197), and 6,528 jobs (7,232 – 704).

Table 12 shows the induced impacts on regional employment, earnings, and output for each airport. These represent impacts in the San Antonio region as a whole, as the regional earnings and output from the direct and indirect impacts are re-spent throughout the region. The induced economic output impact at San Antonio International Airport totaled over \$2.8 billion, and the induced earnings impact totaled over \$1 billion, generating nearly 77,000 jobs. The induced output impact of Stinson Municipal Airport totaled approximately \$36 million, while generating \$14.0 million in induced earnings, and 577 induced jobs for the region.

Table 12: Induced Economic Impacts by Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	76,637	\$1,014.3	\$2,806.5
Stinson Municipal Airport	753	\$14.0	\$36.2
Total	77,390	\$1,028.3	\$2,842.7

Ten Year Forecast of San Antonio Airport System Economic Impacts

GRA, Incorporated developed a ten-year projection of the economic impacts of the San Antonio Airport System. Forecasts of economic impacts of an airport or airport system must account for two somewhat opposing factors that play out in future years. The first of these is the growth in aviation activity that is expected to occur for the airport, growth that will naturally accompany economic and population growth in San Antonio and the San Antonio region. Because the dollar value of the airport system's economic impact in the region is directly tied to the level of aviation activity that occurs at the airport, as the region grows, so too does the level of regional economic activity associated with the airport.

The growth of economic impacts in tandem with broader economic and population growth is tempered, however, by another economic factor, the increasing productivity or efficiency with which a skilled and effective airport administration and workforce will produce the services it provides for airport users. A more productive airport system is able to produce a given amount of aviation services at lower cost. This desirable process of increasing efficiency—one that citizens expect from their government and one that consumers value in the goods and services they buy—means that in future years, the required amount of aviation services is provided at lower cost—that is, with a smaller economic impact—than it would have been if no productivity improvements had occurred.

Thus, while we project that the economic impacts of the San Antonio Airport System will increase over time as the local economy and population grows and the airport system is called upon to serve a larger and wealthier community that makes use of more flights, we also project that this increase in economic impacts will be tempered by the airport system's ability to provide these valuable services at lower unit costs. San Antonio residents and aviation system stakeholders gain both by having a larger, more active airport system that can meet their future needs and by having a system that can meet those needs at lower unit cost through improved productivity. We have assumed annual productivity gains in the airport system of one-half percent (0.5%), a value consistent with industry history, with the varied industries and services that make up the airport system's activity, and broad productivity trends in the economy.

The FAA Terminal Area Forecasts (TAF) provides a well-established projected growth path for over 3,000 airports in the U.S. using historical data and past trends. The air carrier activity growth path reported by the TAF for SAT include a slight decline in traffic in 2012, reflecting the recession plaguing the national economy, followed by annual growth rates between 2.4% and 3% in 2013 through 2016, and then an annual growth rate of 2.33% at SAT for commercial traffic through 2021. General aviation activity is projected to grow by 0.4% annually at SAT, and at an annual rate of 1.10% at SSF. The TAF Forecast of SAT activity is consistent with the consultant-developed forecasts reported for SAT in its recent Master Plan, which is presented in the AECOM document, Vision 2050: A Flight Plan for San Antonio's Future.²²

Based on these aviation activity forecasts and anticipated productivity gains, San Antonio International Airport is projected to experience continued growth through 2021, after an initial decline between the 2011-2012 fiscal years, ultimately achieving a total economic impact over \$5.3 billion in 2021 in inflation-adjusted terms, while contributing to over 99,000 jobs and \$1.6 billion in payroll. Much of the growth at San Antonio International Airport is projected to be a result of commercial air service, while general aviation grows at a more moderate rate.

Stinson Municipal Airport economic impacts are projected to grow more slowly, supporting 1,076 total jobs by 2021, with \$64 million in output and \$22 million in earnings. Table 13 depicts the results of GRA's ten-year forecast of the economic impacts of the San Antonio Airport System.

²² Technical Report, Chapter 3: Aviation Demand Forecast, at www.sanantonio.gov/aviation/custom28.csp

Table 13: Ten Year Projection of the San Antonio Airport System Economic Impacts

	San Antonio International Airport									Stinson Municipal Airport			San Antonio Airport System		
	Commercial			General Aviation			Total			General Aviation = TOTAL			Total		
	Year	Employment	Earnings	Output	Employment	Earnings	Output	Employment	Earnings	Output	Commercial	N/A	Employment	Earnings	Output
Direct Impacts	2011	3,209	\$154.1	\$575.7	2,770	\$133.0	\$496.9	5,979	\$287.1	\$1,072.6			74	\$3.7	\$11.1
	2012	3,112	\$149.4	\$558.3	2,771	\$124.9	\$466.6	5,883	\$274.4	\$1,024.9			71	\$3.6	\$10.7
	2013	3,186	\$152.3	\$568.7	2,772	\$124.8	\$466.4	5,958	\$277.1	\$1,035.1			71	\$3.6	\$10.7
	2014	3,274	\$155.7	\$581.6	2,773	\$124.8	\$466.1	6,047	\$280.5	\$1,047.7			72	\$3.6	\$10.8
	2015	3,372	\$159.6	\$596.1	2,774	\$124.7	\$465.8	6,145	\$284.3	\$1,061.9			72	\$3.6	\$10.9
	2016	3,459	\$162.9	\$608.5	2,775	\$124.6	\$465.5	6,233	\$287.5	\$1,074.0			72	\$3.7	\$10.9
	2017	3,539	\$165.9	\$619.6	2,776	\$124.5	\$465.2	6,315	\$290.4	\$1,084.8			73	\$3.7	\$11.0
	2018	3,622	\$168.9	\$630.9	2,777	\$124.5	\$464.9	6,398	\$293.4	\$1,095.9			73	\$3.7	\$11.1
	2019	3,706	\$172.0	\$642.5	2,778	\$124.4	\$464.6	6,484	\$296.4	\$1,107.1			74	\$3.7	\$11.1
	2020	3,792	\$175.1	\$654.2	2,779	\$124.3	\$464.4	6,571	\$299.4	\$1,118.6			74	\$3.8	\$11.2
	2021	3,880	\$178.3	\$666.2	2,780	\$124.2	\$464.1	6,660	\$302.6	\$1,130.2			75	\$3.8	\$11.3
Indirect Impacts	2011	14,224	\$261.0	\$1,076.0	749	\$13.7	\$56.6	14,973	\$274.7	\$1,132.7			260	\$4.7	\$19.0
	2012	13,793	\$253.0	\$1,043.4	703	\$12.9	\$53.2	14,496	\$265.9	\$1,096.6			250	\$4.5	\$18.3
	2013	14,052	\$257.8	\$1,063.0	703	\$12.9	\$53.2	14,755	\$270.7	\$1,116.1			251	\$4.5	\$18.4
	2014	14,371	\$263.6	\$1,087.1	702	\$12.9	\$53.1	15,073	\$276.5	\$1,140.2			253	\$4.5	\$18.5
	2015	14,727	\$270.2	\$1,114.0	702	\$12.9	\$53.1	15,429	\$283.0	\$1,167.1			254	\$4.6	\$18.6
	2016	15,033	\$275.8	\$1,137.2	701	\$12.9	\$53.1	15,735	\$288.7	\$1,190.3			256	\$4.6	\$18.7
	2017	15,308	\$280.8	\$1,158.0	701	\$12.9	\$53.0	16,009	\$293.7	\$1,211.0			257	\$4.6	\$18.8
	2018	15,588	\$286.0	\$1,179.2	701	\$12.9	\$53.0	16,289	\$298.8	\$1,232.2			259	\$4.6	\$18.9
	2019	15,873	\$291.2	\$1,200.7	700	\$12.8	\$53.0	16,573	\$304.0	\$1,253.7			260	\$4.7	\$19.1
	2020	16,163	\$296.5	\$1,222.7	700	\$12.8	\$52.9	16,863	\$309.4	\$1,275.6			262	\$4.7	\$19.2
	2021	16,459	\$301.9	\$1,245.1	699	\$12.8	\$52.9	17,158	\$314.8	\$1,297.9			263	\$4.7	\$19.3
Induced Impacts	2011	53,646	\$710.0	\$1,964.6	22,991	\$304.3	\$842.0	76,637	\$1,014.3	\$2,806.5			753	\$14.0	\$36.2
	2012	52,020	\$688.5	\$1,905.0	21,593	\$285.8	\$790.8	73,613	\$974.2	\$2,695.8			724	\$13.5	\$34.8
	2013	52,996	\$701.4	\$1,940.8	21,580	\$285.6	\$790.3	74,576	\$987.0	\$2,731.0			728	\$13.5	\$34.9
	2014	54,198	\$717.3	\$1,984.8	21,566	\$285.4	\$789.8	75,764	\$1,002.7	\$2,774.6			732	\$13.6	\$35.1
	2015	55,541	\$735.1	\$2,034.0	21,553	\$285.3	\$789.3	77,094	\$1,020.3	\$2,823.3			736	\$13.7	\$35.4
	2016	56,697	\$750.4	\$2,076.3	21,540	\$285.1	\$788.8	78,237	\$1,035.5	\$2,865.1			741	\$13.8	\$35.6
	2017	57,734	\$764.1	\$2,114.3	21,527	\$284.9	\$788.3	79,261	\$1,049.0	\$2,902.6			745	\$13.8	\$35.8
	2018	58,790	\$778.1	\$2,152.9	21,513	\$284.7	\$787.8	80,303	\$1,062.8	\$2,940.8			750	\$13.9	\$36.0
	2019	59,864	\$792.3	\$2,192.3	21,500	\$284.5	\$787.4	81,364	\$1,076.8	\$2,979.6			754	\$14.0	\$36.2
	2020	60,959	\$806.8	\$2,232.4	21,487	\$284.4	\$786.9	82,445	\$1,091.2	\$3,019.2			759	\$14.1	\$36.4
	2021	62,073	\$821.5	\$2,273.2	21,473	\$284.2	\$786.4	83,547	\$1,105.7	\$3,059.6			763	\$14.2	\$36.7
Total Impacts	2011	71,080	\$1,125.1	\$3,616.3	26,510	\$451.0	\$1,395.5	97,589	\$1,576.1	\$5,011.8			1,087	\$22.4	\$66.3
	2012	68,925	\$1,091.0	\$3,506.7	25,067	\$423.6	\$1,310.6	93,991	\$1,514.6	\$4,817.3			1,045	\$21.5	\$63.7
	2013	70,234	\$1,111.4	\$3,572.5	25,054	\$423.3	\$1,309.8	95,288	\$1,534.8	\$4,882.3			1,050	\$21.6	\$64.1
	2014	71,843	\$1,136.6	\$3,653.5	25,041	\$423.1	\$1,309.0	96,884	\$1,559.7	\$4,962.5			1,056	\$21.8	\$64.4
	2015	73,640	\$1,164.8	\$3,744.1	25,029	\$422.8	\$1,308.2	98,668	\$1,587.6	\$5,052.3			1,062	\$21.9	\$64.8
	2016	75,189	\$1,189.1	\$3,822.0	25,016	\$422.6	\$1,307.4	100,205	\$1,611.6	\$5,129.4			1,069	\$22.0	\$65.2
	2017	76,581	\$1,210.8	\$3,891.9	25,003	\$422.3	\$1,306.6	101,584	\$1,633.1	\$5,198.5			1,075	\$22.2	\$65.6
	2018	77,999	\$1,232.9	\$3,963.0	24,990	\$422.0	\$1,305.8	102,990	\$1,655.0	\$5,268.8			1,082	\$22.3	\$66.0
	2019	79,443	\$1,255.5	\$4,035.5	24,978	\$421.8	\$1,305.0	104,421	\$1,677.3	\$5,340.5			1,088	\$22.4	\$66.4
	2020	80,914	\$1,278.4	\$4,109.3	24,965	\$421.5	\$1,304.1	105,879	\$1,699.9	\$5,413.4			1,095	\$22.6	\$66.8
	2021	82,413	\$1,301.8	\$4,184.4	24,952	\$421.3	\$1,303.3	107,365	\$1,723.1	\$5,487.7			1,101	\$22.7	\$67.2

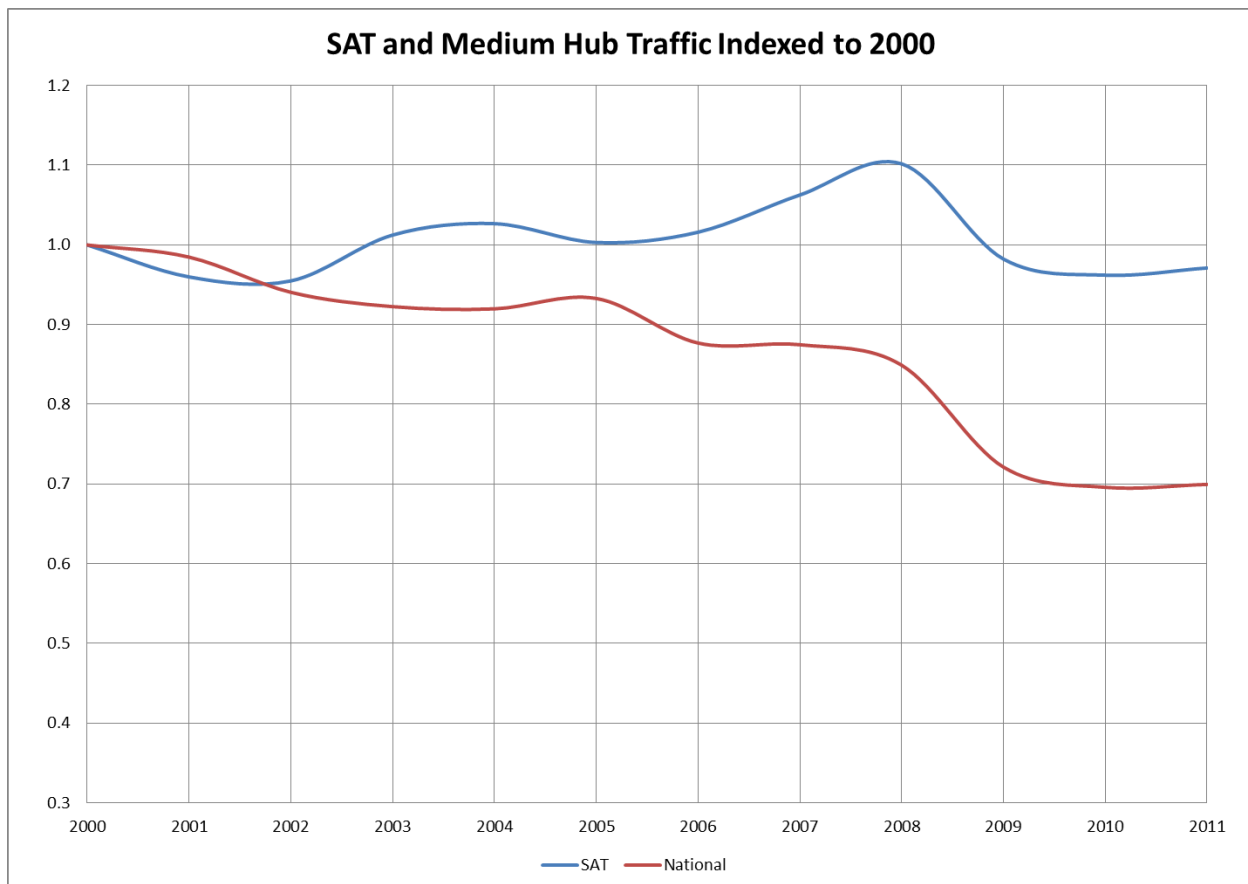
Attachment A: Economic Impacts of San Antonio International Airport

A.1 Background and Role of the Airport

San Antonio International Airport (SAT), founded in 1941, is San Antonio's largest airport serving the metro area. Located eight miles from downtown San Antonio, SAT is situated on 2,600 acres of land and contains two terminals, two all-weather runways and one general aviation runway utilized by scheduled aircraft passenger carriers, cargo carriers, commuter carriers, and general aviation pilots. The two terminals offer passengers a variety of goods and services, including over twenty restaurants and shops to choose from, ATMs, computer plug-in areas and a chapel.

SAT enplanes approximately 4 million passengers per year. It is classified as a medium-sized hub, and services 31 destinations. SAT had growing operations since 2005, when most other mid-sized hubs were experiencing a decline in operations. In 2008, SAT, like many other airports experienced a reduction in traffic. The reduction at SAT, when compared to other similarly sized hubs, was much less, as graphically represented by Figure A-1—a chart that indexes traffic at SAT in 2000 to all other similarly sized airports through 2010.

Figure A- 1: SAT and Medium-Sized Hub Flights Indexed to 2000



As of January 2012, SAT had non-stop service to 31 cities: 28 in the United States and 3 in Mexico. Southwest Airlines (WN), the largest carrier at the airport, provided service to 13 cities (of which 11 were unique service by Southwest at the airport), and accounted for 42 percent of all weekly seats at SAT. SAT was also one of the three airports originally served by Southwest Airlines.

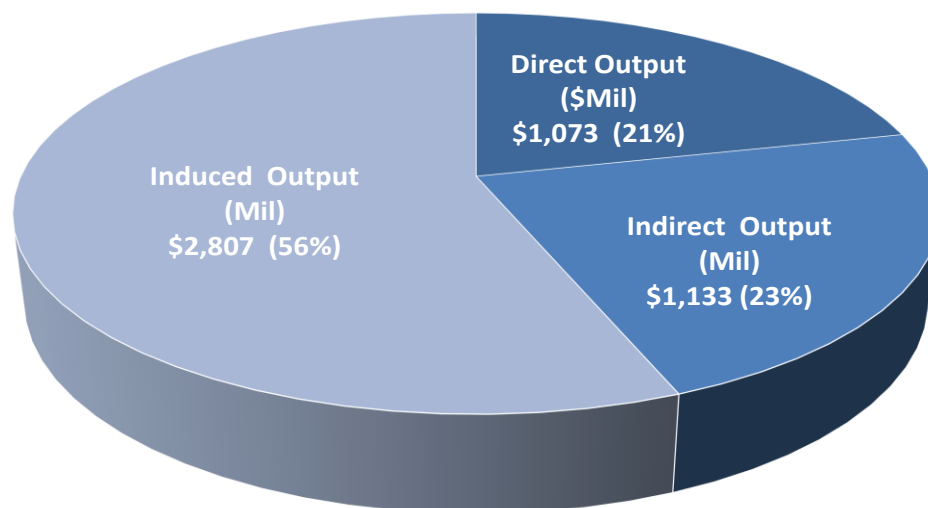
A.2 Summary of Total Economic Impact

Table A-1 displays a summary of the economic impact of SAT on the San Antonio economy. In 2011, SAT supported 97,589 jobs representing \$1.6 billion in personal income, and \$5.0 billion in output for the San Antonio regional economy.

Table A- 1: The Total Economic Impacts of San Antonio International Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
Direct Impacts	5,979	\$287.1	\$1,072.6
Indirect Impacts	14,973	\$274.7	\$1,132.7
Induced Impacts	76,637	\$1,014.3	\$2,806.5
Total Impacts	97,589	\$1,576.1	\$5,011.8

Figure A- 2: The Economic Impact of San Antonio International Airport



As discussed in previous sections, there are three different types of impacts. Direct impacts are generated from the use of the airport and related services. Indirect impacts result from the local spending of visitors to the area that arrived via SAT. The induced impacts are the impacts that

are the result of the multiplier effect that occurs in the local economy as businesses and individuals spend money that is generated by direct and indirect impacts. The total impact is the impact that is equal to the sum of the direct, indirect, and induced impacts.

Local payrolls were also affected by SAT. Of the \$1.6 billion in earnings generated by SAT, \$287 million (18 percent) was generated by direct economic impacts. \$274.7 million (17 percent) was generated by indirect impacts, and induced impacts constituted \$1.0 billion (65 percent) of the total economic payroll impacts.

The total output impacts to the San Antonio area in 2011 totaled \$5.0 billion. Of this total, direct impacts contributed \$1.07 billion (21 percent), while indirect and induced impacts contributed \$1.13 billion (23 percent) and \$2.81 billion (56 percent), respectively.

A.3 Direct Impacts

Table A-2 expands upon Table A-1, and displays the distribution of SAT's direct impact to different areas within the transportation industry. It shows that business activities of transportation activities at SAT provided the San Antonio regional economy with \$1.1 billion in direct output, \$287.1 million in direct earnings, and 5,979 direct jobs.

Table A- 2: The Direct Economic Impacts of San Antonio International Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
Air Freight And Cargo Operations	475	\$26.5	\$192.2
Aircraft Maintenance and Repair	1,524	\$74.0	\$229.9
Airlines Serving San Antonio	704	\$37.9	\$210.8
Corporate and Private Hangars	236	\$11.5	\$35.6
Executive Charters	5	\$0.3	\$1.8
Fixed Base Operators	715	\$34.7	\$107.9
Ground Support Services	189	\$9.2	\$28.5
Government and Other Services	699	\$38.1	\$84.5
Pilot/Mechanic Training	377	\$20.7	\$86.3
San Antonio Airport Concessionaires	517	\$6.4	\$27.2
SAT -- CIP	538	\$28.0	\$67.9
Total	5,979	\$287.1	\$1,072.6

Aircraft maintenance and repair comprised the largest proportion in the SAT direct impacts sector, and contributed slightly more than airlines and air freight and cargo categories.

Aircraft maintenance and repair contributed 25 percent of total direct employment, 26 percent of total direct earnings, and 21 percent of total direct output at SAT. Airlines were the second largest category. Airlines serving San Antonio represented 12 percent of total direct employment, 13 percent of total direct earnings, and 20 percent of total direct output at SAT.

A.4 Indirect Impacts

Table A-3 shows the impact of visitors who came to the San Antonio region via SAT on the local economy. In 2011, approximately 3.6 million visitors came to the San Antonio region and traveled via SAT, as shown in Figure 7. These visitors spent an average of \$611.13 in local purchases in addition to their airfare. The indirect impacts from visitor spending at SAT totaled \$1.1 billion in output, representing \$274 million in earnings, and 14,973 jobs. Table A-3 includes the effects of spending for overnight flight crew accommodations.

Table A- 3: The Indirect Economic Impacts of San Antonio International Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
Food	7,101	\$91.8	\$320.0
Room	4,890	\$106.7	\$412.6
Transportation	999	\$26.8	\$153.8
Shopping	833	\$17.0	\$139.5
Entertainment	1,091	\$30.8	\$100.0
Miscellaneous	58	\$1.7	\$6.8
Total	14,973	\$274.7	\$1,132.7

A.5 Annual Impacts from Capital Improvement Programs

Capital Improvements at San Antonio International produces 88 percent of the total capital improvement program output impact over the 2012-2017 period, averaging \$149.8 million in total output impact per year. CIP-related earnings average \$52.2 million per year over the six year period and CIP-related jobs average 1,161 per year over the six year period.

Table A- 4: Average Yearly Impacts from Capital Expenditures at San Antonio International Airport 2012-2017

	Employment	Earnings (\$Mil)	Output (\$Mil)
Direct Impacts	538	\$28.0	\$67.9
Indirect Impacts	0	\$0.0	\$0.0
Induced Impacts	623	\$24.2	\$82.0
Total Impacts	1,161	\$52.2	\$149.9

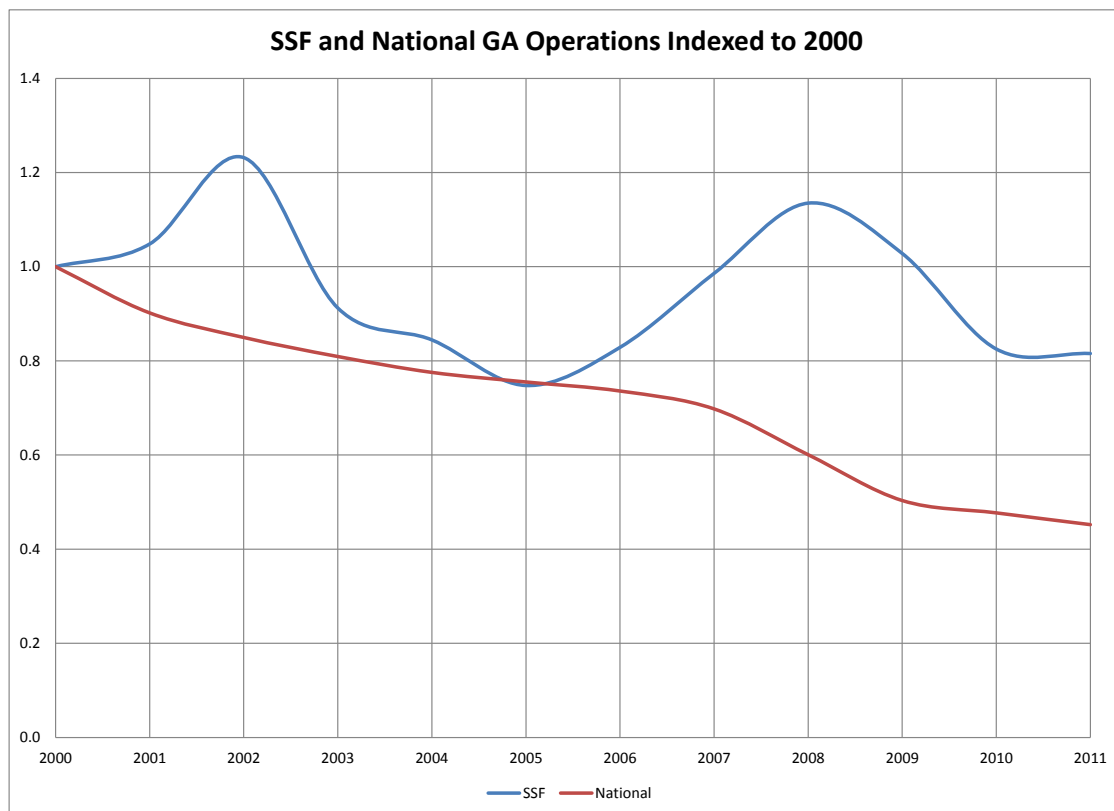
Attachment B: The Economic Impacts of Stinson Municipal Airport

B.1 Background and Role of the Airport

Stinson Municipal Airport (SSF) is the second oldest general aviation airport in continuous operation in the United States, and the primary reliever for general aviation traffic in San Antonio. The airport is located 6 miles south of downtown San Antonio's central business district and cultural attractions like the River Walk. The airport is home to the Texas Air Museum, which, since 1999, has been dedicated to telling the story of Texas and San Antonio's vital role in the development of military air power. It also pays tribute to aviation pioneers, technical achievements in the realm of aviation, and above all, pays homage to those who gave their lives to defend freedom.

SSF primarily serves the general aviation market. Figure B-1 shows the annual activity trends at SSF along with national trends for total general aviation operations (includes both VFR and IFR operations). Relative to 2000 levels, Stinson's activity dropped slightly below the national average in the middle of the last decade. However, SSF has fared much better than the national average, specifically in the last few years of the last decade, where marked growth was seen between 2006 and 2008. It is important to note that the 2008 mark also signified a large-scale decline in the industry as a whole, as shown previously in the analysis of SAT traffic.

Figure B- 1: SSF and National General Aviation Flights, Indexed to 2000



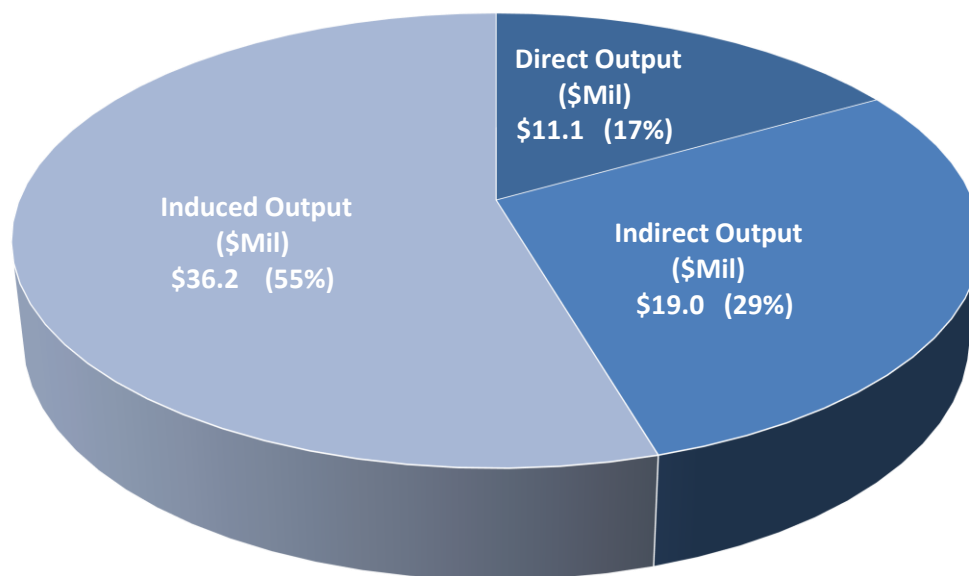
B.2 Summary of Total Economic Impacts

Table B-1 summarizes the total economic impact of SSF on the San Antonio regional economy. In 2011, SSF created 1,087 local jobs, generating \$21.2 million in earnings, and \$66.3 million in output.

Table B- 1: The Total Economic Impacts of Stinson Municipal Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
Direct Impacts	74	\$3.7	\$11.1
Indirect Impacts	260	\$4.7	\$19.0
Induced Impacts	753	\$14.0	\$36.2
Total Impacts	1,087	\$22.4	\$66.3

Figure B- 2: The Economic Impact of Stinson Municipal Airport



SSF's direct impacts accounted for 17 percent (\$11.1 million) of the total economic impact of the airport. The indirect and induced impacts accounted for 29 percent (\$19.0 million) and 55 percent (\$36.2 million) of the total economic impact of the airport, respectively.

B.3 Direct Impacts

Table B-2 shows the direct impact of the transportation-related industries at SSF on the San Antonio regional economy. These industries created 74 jobs, yielding nearly \$4 million in earnings, and over \$11 million in output.

Table B- 2: The Direct Economic Impacts of Stinson Municipal Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
Air Freight And Cargo Operations	-	-	-
Aircraft Maintenance and Repair	-	-	-
Airlines Serving San Antonio	-	-	-
Corporate and Private Hangars	3	\$0.1	\$0.5
Executive Charters	8	\$0.4	\$1.2
Fixed Base Operators	10	\$0.5	\$1.5
Ground Support Services	-	-	-
Government and Other Services	14	\$0.7	\$2.1
Pilot/Mechanic Training	23	\$1.1	\$3.5
Concessions	5	\$0.2	\$0.8
CIP -- SSF	11	\$0.7	\$1.6
Total	74	\$3.7	\$11.1

B.4 Indirect Impacts

Table B-3 shows the impact of visitors who came to the San Antonio region via SSF on the local economy. In 2011, over 38,000 visitors came to the San Antonio region and traveled via SSF. Domestic visitors spent an average of \$492.04 in local purchases in addition to their airfare, while international visitors spent approximately \$953.07. The indirect impacts from visitor spending at SSF totaled \$19 million in output, representing \$4.7 million in earnings, and 260 jobs.

Table B- 3: The Indirect Economic Impacts of Stinson Municipal Airport

	Employment	Earnings (\$Mil)	Output (\$Mil)
Food	122	\$1.6	\$5.5
Room	107	\$2.3	\$9.0
Transportation	12	\$0.3	\$1.9
Shopping	12	\$0.3	\$2.1
Entertainment	7	\$0.2	\$0.6
Misc.	0	\$0.0	\$0.0
Total	260	\$4.7	\$19.0

B.5 Impacts from Capital Improvement Programs

Capital Improvements at Stinson are responsible for 12 percent of the total SAAS CIP output impact over the 2012-2017 period, averaging \$3.4 million per year. CIP-related earnings average \$1.2 million per year over the 2012-2017 period and employment averages 25 people per year over the six year period.

Table B- 4: Average Yearly Impacts from Capital Expenditures at Stinson Municipal Airport 2012-2017

	Employment	Earnings (\$Mil)	Output (\$Mil)
Direct Impacts	11	\$0.7	\$1.6
Indirect Impacts	0	\$0.0	\$0.0
Induced Impacts	14	\$0.5	\$1.8
Total Impacts	25	\$1.2	\$3.4

Appendix – Data Tables

Appendix Table 1: Average Visitor Spending

Visitors to the San Antonio Region via Air

↓

		SAT		SSF	
		Business	Leisure	Business	Leisure
Number of Passengers	Commercial	591,642	1,201,213	-	-
	General Aviation	58,873	-	38,675	-

Average Visitor Spending per Day

↓

		SAT		SSF	
		Business	Leisure	Business	Leisure
Average Visitor Spending	Food	\$81.62	\$34.83	\$81.62	-
	Room	\$133.43	\$28.38	\$133.43	-
	Transportation	\$27.91	\$23.22	\$27.91	-
	Shopping	\$30.73	\$15.48	\$30.73	-
	Entertainment	\$8.89	\$20.64	\$8.89	-
	Misc.	\$0.20	\$6.45	\$0.20	-
	Total	\$282.78	\$129.00	\$282.78	\$0.00

Average Length of Stay

↓

		SAT		SSF	
		Business	Leisure	Business	Leisure
Average Length of Stay	Commercial	3.68	3.23	0	0
	General Aviation	1.33	0	1.74	0

↓

Appendix Table 1: Average Visitor Spending (continued)

Average Visitor Spending per Trip



			SAT		SSF	
			Business	Leisure	Business	Leisure
Average Visitor Spending	Commercial	Food	\$300.36	\$112.50	\$0.00	-
		Room	\$491.02	\$91.67	\$0.00	-
		Transportation	\$102.71	\$75.00	\$0.00	-
		Shopping	\$113.09	\$50.00	\$0.00	-
		Entertainment	\$32.72	\$66.67	\$0.00	-
		Misc.	\$0.74	\$20.83	\$0.00	-
		Total	\$1,040.63	\$416.67	\$0.00	-
	General Aviation	Food	\$108.55	-	\$142.02	-
		Room	\$177.46	-	\$232.17	-
		Transportation	\$37.12	-	\$48.56	-
		Shopping	\$40.87	-	\$53.47	-
		Entertainment	\$11.82	-	\$15.47	-
		Misc.	\$0.27	-	\$0.35	-
		Total	\$376.10	-	\$492.04	-



Total Visitor Spending



			SAT		SSF	
			Business	Leisure	Business	Leisure
Total Visitor Spending	Commercial	Food	\$177,706,637	\$135,137,568	-	-
		Room	\$290,509,637	\$110,112,092	-	-
		Transportation	\$60,766,874	\$90,091,712	-	-
		Shopping	\$66,906,701	\$60,061,141	-	-
		Entertainment	\$19,355,697	\$80,081,522	-	-
		Misc.	\$435,449	\$25,025,476	-	-
		Total	\$615,680,994	\$500,509,510	-	-
	General Aviation	Food	\$6,390,935	-	\$3,156,654	-
		Room	\$10,447,714	-	\$5,160,405	-
		Transportation	\$2,185,383	-	\$1,079,419	-
		Shopping	\$2,406,192	-	\$1,188,483	-
		Entertainment	\$696,097	-	\$343,821	-
		Misc.	\$15,660	-	\$7,735	-
		Total	\$22,141,982	-	\$10,936,517	-

Appendix Table 2: San Antonio Airport System Economic Impact Summary

		Direct			Indirect			Induced			Total		
		Jobs	Earnings (\$Mil)	Output (\$Mil)	Jobs	Earnings (\$Mil)	Output (\$Mil)	Jobs	Earnings (\$Mil)	Output (\$Mil)	Jobs	Earnings (\$Mil)	Output (\$Mil)
SAT	Air Freight and Cargo Operators	475	\$27	\$192	-	-	-	4,405	\$52	\$285	4,880	\$27	\$477
	Aircraft Maintenance and Repair	1,524	\$74	\$230	-	-	-	14,132	\$144	\$341	15,656	\$74	\$571
	Airlines	704	\$38	\$211	-	-	-	6,528	\$74	\$300	7,232	\$38	\$511
	Corporate and Private Hangars	236	\$11	\$36	-	-	-	2,188	\$22	\$51	2,424	\$11	\$86
	Executive Charters	5	\$0	\$2	-	-	-	46	\$1	\$3	51	\$0	\$4
	Fixed Base Operators	715	\$35	\$108	-	-	-	6,630	\$68	\$154	7,345	\$35	\$261
	Ground Support Services	189	\$9	\$29	-	-	-	1,294	\$31	\$56	1,483	\$9	\$85
	Government and Other	699	\$38	\$85	-	-	-	15,423	\$98	\$159	16,122	\$38	\$243
	Pilot/Mechanic Training	377	\$21	\$86	-	-	-	6,839	\$39	\$112	7,216	\$21	\$199
	Airport Concessionaires	517	\$6	\$27	-	-	-	7,599	\$15	\$39	8,116	\$6	\$67
	Visitor Spending	-	-	-	14,973	\$275	\$1,133	10,881	\$446	\$1,220	25,854	\$0	2,353
	Average Yearly Construction	538	\$28	\$68	-	-	-	623	\$24	\$82	1,161	\$52	\$150
	Total	5,979	\$287	\$1,073	14,973	\$275	\$1,133	76,589	\$1,013	\$2,803	97,541	\$311	\$5,008
SSE	Air Freight and Cargo Operators	-	-	-	-	-	-	-	-	-	-	-	-
	Aircraft Maintenance and Repair	-	-	-	-	-	-	-	-	-	-	-	-
	Airlines	-	-	-	-	-	-	-	-	-	-	-	-
	Corporate and Private Hangars	3	\$0.1	\$0.5	-	-	-	28	\$0.3	\$0.7	31	-	\$1
	Executive Charters	8	\$0.4	\$1	-	-	-	74	\$0.8	\$2	82	\$1	\$3
	Fixed Base Operators	10	\$0.5	\$2	-	-	-	93	\$0.9	\$2	103	\$1	\$4
	Ground Support Services	-	-	-	-	-	-	-	-	-	-	-	-
	Other Contractors/Service Providers	14	\$0.7	\$2.1	-	-	-	130	\$1	\$3	144	\$2	\$5
	Pilot/Mechanic Training	23	\$1	\$3	-	-	-	213	\$2	\$5	236	\$3	\$9
	Airport Concessionaires	5	\$0.2	0.8	-	-	-	39	\$0.7	\$1	44	\$1	\$2
	Visitor Spending	-	-	-	260	\$5	\$19	162	\$7	\$20	422	\$12	\$39
	Average Yearly Construction	11	\$1	\$2	-	-	-	14	\$1	\$2	25	\$1	\$3
	Total	74	\$4	\$11	260	\$5	\$19	753	\$14	\$36	1,087	\$22	\$66
Total	Air Freight and Cargo Operators	475	\$27	\$192	-	-	-	4,405	\$52	\$285	4,880	\$78	\$477
	Aircraft Maintenance and Repair	1,524	\$74	\$230	-	-	-	14,132	\$144	\$341	15,656	\$218	\$571
	Airlines	704	\$38	\$211	-	-	-	6,528	\$74	\$300	7,232	\$112	\$511
	Corporate and Private Hangars	239	\$12	\$36	-	-	-	2,216	\$23	\$51	2,455	\$34	\$87
	Executive Charters	13	\$1	\$3	-	-	-	121	\$1	\$4	134	\$2	\$7
	Fixed Base Operators	725	\$35	\$109	-	-	-	6,723	\$69	\$156	7,448	\$104	\$265
	Ground Support Services	189	\$9	\$29	-	-	-	1,294	\$31	\$56	1,483	\$40	\$85
	Other Contractors/Service Providers	713	\$39	\$87	-	-	-	15,553	\$100	\$162	16,266	\$138	\$248
	Pilot/Mechanic Training	400	\$22	\$90	-	-	-	7,052	\$41	\$118	7,452	\$63	\$207
	Airport Concessionaires	522	\$6	\$28	-	-	-	7,638	\$15	\$41	8,160	\$22	\$68
	Total	6,052	\$291	\$1,084	15,233	\$279	\$1,152	77,342	\$1,027	\$2,839	98,627	\$1,597	\$5,074

Appendix Table 3: Airport Impact Industries

User/Service Provider Category/Type	NAICS Industry		RIMS Industry	
Air Freight And Cargo Operations				
	481219	Other Nonscheduled Air Transportation	481000	Air Transportation
	481112	Scheduled Freight Air Transportation	481000	Air Transportation
Aircraft Maintenance and Repair				
	488190	Other Support Activities, Air Transport	481000	Air Transportation
Airlines Serving San Antonio				
	481111	Scheduled Passenger Air Transportation	481000	Air Transportation
Corporate and Private Hangars				
	488190	Other Support Activities, Air Transport	481000	Air Transportation
Executive Charters				
	481211	Nonscheduled Air Passenger Chartering	481000	Air Transportation
Fixed Base Operators				
	48819	Other Support Activities, Air Transport	481000	Air Transportation
Ground Support Services				
	48819	Other Support Activities, Air Transport	311111-3122A0	Food, beverage, and tobacco product manufacturing
Other Contractors/Service Providers				
	488119	Other Airport Operations	561100-561900	Administrative and support services
	488190	Other Support Activities, Air Transport	481000	Air Transportation
Pilot/Mechanic Training				
	481219	Other Nonscheduled Air Transportation	611100-611B00	Educational Services
Rental Car Companies				
	532111	Passenger Car Rental	485A00	Transit and ground passenger transportation
Airport Concessionaires				
	722211	Limited-Service Restaurants	722000	Food Services and Drinking Places
	443110	Appliances & Electronics Stores	4A0000	Retail Trade
	522110	Commercial Banking	52A000-522A00	Federal Reserve Banks, Credit intermediation, and related services
	541810	Advertising Agencies	541100-5419A0	Professional, scientific, and technical services
	452990	Other General Merchandise Stores	4A0000	Retail Trade
	488190	Other Support Activities, Air Transport	4A0000	Retail Trade
	722310	Food Service Contractors	311111-3122A0	Food, Beverage, and Tobacco Product Manufacturing
	445120	Convenience Stores	4A0000	Retail Trade
	722110	Full-Service Restaurants	722000	Food Services and Drinking Places

Appendix Table 4: Average Tax of the San Antonio Region

Average Taxes by Counties in San Antonio MSA



County	Population	Population Weight Value	State Sales Tax	County Tax	Average City Tax	Average SPD Tax	Transit Tax	Total Tax
Bexar	1,714,773	39.95463442	6.25%	0.00%	1.08%	0.06%	0.31%	7.69%
Atascosa	44,911	1.046437392	6.25%	0.50%	0.41%	0.00%	0.00%	7.16%
Bandera	20,485	0.477305559	6.25%	0.50%	0.25%	0.00%	0.00%	7.00%
Comal	108,472	2.527424391	6.25%	0.50%	0.53%	0.50%	0.00%	7.78%
Guadalupe	131,533	3.064751386	6.25%	0.50%	0.70%	0.00%	0.00%	7.45%
Kendall	33,410	0.778461252	6.25%	0.50%	0.38%	0.00%	0.00%	7.13%
Medina	46,006	1.071951163	6.25%	0.50%	0.61%	0.00%	0.00%	7.36%
Wilson	42,918	1	6.25%	0.00%	1.65%	0.10%	0.00%	8.00%



Weighted Average Tax for Entire MSA



Weighted Average Tax, San Antonio MSA	7.65%
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Appendix Table 5: Tax Impacts of the San Antonio Airport System

Tax Impacts of San Antonio International Airport								
		Subject to Tax	State Sales Tax	City/Local Sales Tax	Other Tax City	Other Tax County	Total Tax	Tax Revenue
Visitor Spending	Food	\$ 319,323,332	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 24,442,406
	Room	\$ 409,689,083	6.25%	1.40%	9.00%	1.75%	18.40%	\$ 75,400,973
	Transportation	\$ 153,796,816	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 11,772,282
	Shopping	\$ 139,482,231	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 10,676,581
	Entertainment	\$ 100,041,347	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 7,657,603
	Misc.	\$ 6,812,107	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 521,428
	Subtotal	\$ 1,129,144,916						\$ 130,471,272
Visitor Spending, Induced Earnings	Food	\$ 201,940,075	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 11,593,033
	Room	\$ 248,025,771	6.25%	1.40%	9.00%	1.75%	18.40%	\$ 14,238,734
	Transportation	\$ 107,642,392	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 6,179,565
	Shopping	\$ 89,282,576	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 5,125,559
	Entertainment	\$ 66,707,570	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 3,829,567
	Misc.	\$ 4,408,795	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 253,101
	Subtotal	\$ 718,007,179						\$ 41,219,560
On-Airport Impacts, Total Earnings	Aircraft Maintenance and Repair	\$ 218,084,224	6.25%	1.40%	-	-	-	\$ 12,519,841
	Fixed Base Operators	\$ 102,316,418	6.25%	1.40%	-	-	-	\$ 5,873,810
	Pilot Training	\$ 59,733,860	6.25%	1.40%	-	-	-	\$ 3,429,218
	San Antonio Concessions	\$ 21,162,979	6.25%	1.40%	-	-	-	\$ 1,214,930
	Subtotal	\$ 401,297,481						\$ 23,037,800
Texas State Unemployment								\$ 27,388,044
Total								\$ 222,116,676

Tax Impacts of Stinson Municipal Airport								
		Subject to Tax	State Sales Tax	City/ Local Sales Tax	Other Tax City	Other Tax County	Total Tax	Tax Revenue
Visitor Spending	Food	\$ 5,492,577	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 1,292,704
	Room	\$ 8,979,105	6.25%	1.40%	9.00%	1.75%	18.40%	\$ 1,652,554
	Transportation	\$ 1,878,189	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 143,765
	Shopping	\$ 2,067,960	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 158,291
	Entertainment	\$ 598,248	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 45,793
	Misc.	\$ 13,459	6.25%	1.40%	0.00%	0.00%	7.65%	\$ 1,030
	Subtotal	\$ 19,029,539						\$ 3,294,136
Visitor Spending, Induced Earnings & On-Airport Impacts, Total Earnings								\$ 1,215,564
Texas State Unemployment								\$ 155,503
Total								\$ 4,665,203

TOTAL LOCAL TAXES GENERATED, SAAS	
SAT	\$ 71,689,669
SSF	\$ 1,455,544
Total	\$ 73,145,213

TOTAL STATE TAXES GENERATED, SAAS	
SAT	\$ 150,427,007
SSF	\$ 3,209,659
Total	\$ 153,636,667

TOTAL TAXES GENERATED, SAAS	
SAT	\$ 222,116,676
SSF	\$ 4,665,203
Total	\$ 226,781,879

Visitor Spending, Induced Earnings, and On-Airport Impacts, Total Earnings are scaled to 75% as indicated in the methodology portion of the report

Appendix Table 6: Total Average Yearly Impacts from CIP Expenditures by Sector 2012-2017

	Total Impacts			Direct Impacts			Induced Impacts		
	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)
Construction	686	\$28.5	\$85.5	335	\$14.6	\$38.1	351	\$13.9	\$47.4
Professional, Scientific and Technical Services	470	\$23.4	\$62.8	203	\$13.3	\$28.8	267	\$10.1	\$33.9
Internet and Other Information Services	29	\$1.5	\$5.1	10	\$0.8	\$2.5	19	\$0.7	\$2.5

Appendix Table 7: Average Yearly Impacts from CIP Expenditures by Airport 2012-2017

	Total Impacts			Direct Impacts			Induced Impacts		
	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)
San Antonio International Airport	1,161	\$52.2	\$149.8	538	\$28.0	\$67.9	623	\$24.2	\$82.0
Stinson Municipal Airport	25	\$1.2	\$3.4	11	\$0.7	\$1.6	14	\$0.5	\$1.8
Total	1,185	\$53.4	\$153.3	548	\$28.7	\$69.5	637	\$24.8	\$83.8

Appendix Table 8: Total Average Yearly Impacts from CIP Expenditures at San Antonio International Airport 2012-2017

	Total Impacts			Direct Impacts			Induced Impacts		
	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)
Construction	681	\$28.3	\$84.9	333	\$14.5	\$37.9	349	\$13.8	\$47.1
Professional, Scientific and Technical Services	454	\$22.6	\$60.6	196	\$12.8	\$27.8	258	\$9.7	\$32.7
Internet and Other Information Services	25	\$1.3	\$4.4	9	\$0.7	\$2.2	17	\$0.6	\$2.2
Total	1,161	\$52.2	\$149.8	538	\$28.0	\$67.9	623	\$24.2	\$82.0

Appendix Table 9: Total Average Yearly Impacts from CIP Expenditures at Stinson Municipal Airport 2012-2017

	Total Impacts			Direct Impacts			Induced Impacts		
	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)	Employment	Earnings (\$Mil)	Output (\$Mil)
Construction	4	\$0.2	\$0.6	2	\$0.1	\$0.3	2	\$0.1	\$0.3
Professional, Scientific and Technical Services	17	\$0.8	\$2.2	7	\$0.5	\$1.0	9	\$0.4	\$1.2
Internet and Other Information Services	4	\$0.2	\$0.7	1	\$0.1	\$0.3	3	\$0.1	\$0.3
Total	25	\$1.2	\$3.4	11	\$0.7	\$1.6	14	\$0.5	\$1.8